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OM nucleic - nucleic search, using bw model

Run on: January 22, 2005, 23:11:32 ; Search time 175 seconds  
(without alignment)  
8285.768 Million call updates/sec

Title: US-09-294-539-3

Perfect score: 2040  
Sequence: 1 atcgagccgcgcgaccagcca.....caaaaaaaaaaaaaaaaaa 2040

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Issued Patents NA:  
1: /cgn2\_6/prodata/1/ina/5A\_COMB.seq.\*  
2: /cgn2\_6/prodata/1/ina/5B\_COMB.seq.\*  
3: /cgn2\_6/prodata/1/ina/6A\_COMB.seq.\*  
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5: /cgn2\_6/prodata/1/ina/PCTUS\_COMB.seq.\*  
6: /cgn2\_6/prodata/1/ina/backfile1.seq.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	590.2	28.9	1731	4 US-09-519-232-3	Sequence 3, App1
2	563.4	27.6	1767	4 US-09-519-232-1	Sequence 1, App1
3	562	22.6	2296	4 US-09-519-232-63	Sequence 63, App1
4	420.6	20.6	2011	2 US-08-989-478-6	Sequence 6, App1
5	420.6	20.6	2011	2 US-08-989-478-7	Sequence 7, App1
6	420.6	20.6	2011	3 US-08-989-685-6	Sequence 6, App1
7	420.6	20.6	2011	3 US-08-989-685-7	Sequence 7, App1
8	411.8	20.2	1608	2 US-08-989-478-11	Sequence 11, App1
9	411.8	20.2	1608	3 US-08-989-685-11	Sequence 11, App1
10	409.2	20.1	1597	2 US-08-989-478-9	Sequence 9, App1
11	409.2	20.1	1597	2 US-08-989-685-9	Sequence 9, App1
12	400.4	19.6	1194	3 US-08-989-478-13	Sequence 13, App1
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14	381.8	18.7	1740	4 US-09-519-232-5	Sequence 5, App1
15	380.4	18.6	1818	4 US-09-519-232-19	Sequence 19, App1
16	380.4	18.6	1818	4 US-09-519-232-71	Sequence 45, App1
17	359.8	17.6	653	4 US-09-519-232-45	Sequence 45, App1
18	344.2	16.9	659	4 US-09-519-232-29	Sequence 29, App1
19	315.8	15.5	1428	4 US-09-569-804-1	Sequence 1, App1
20	315.8	15.5	2368	4 US-09-569-804-2	Sequence 2, App1
21	311.8	15.3	2154	4 US-09-551-778-1	Sequence 1, App1
22	311.8	15.3	2154	4 US-10-047-593-1	Sequence 73, App1
23	311.4	15.3	2673	4 US-09-519-232-73	Sequence 6, App1
24	309.8	15.2	1830	4 US-09-569-804-6	Sequence 8, App1
25	309.8	15.2	2120	4 US-09-569-804-8	Sequence 8, App1
26	306.2	15.0	1824	4 US-09-569-804-5	Sequence 5, App1
27	306.2	15.0	2420	4 US-09-569-804-7	Sequence 7, App1

28	277	13.6	498	4 US-09-519-232-37	Sequence 37, App1
29	276.6	13.6	498	4 US-09-519-232-39	Sequence 39, App1
30	265.4	13.0	2844	4 US-09-519-232-65	Sequence 65, App1
31	264.8	13.0	786	2 US-08-989-478-15	Sequence 15, App1
32	264.8	13.0	786	3 US-08-989-685-15	Sequence 15, App1
33	262	12.8	1761	4 US-09-519-232-7	Sequence 7, App1
34	258.4	12.7	5655	2 US-08-989-478-1	Sequence 1, App1
35	258.4	12.7	5655	3 US-08-989-685-1	Sequence 1, App1
36	258.4	12.7	5655	3 US-08-880-179-2	Sequence 2, App1
37	258.4	12.7	9919	3 US-08-880-179-1	Sequence 1, App1
38	243.4	11.9	2043	4 US-09-533-029-118	Sequence 118, App1
39	231.4	11.3	498	4 US-09-519-232-41	Sequence 41, App1
40	230.6	11.3	1385	4 US-09-569-804-16	Sequence 16, App1
41	230.4	11.3	2235	4 US-09-569-804-20	Sequence 20, App1
42	229	11.2	1725	4 US-09-519-232-69	Sequence 69, App1
43	205.4	10.1	1804	4 US-09-519-232-17	Sequence 17, App1
44	198.2	9.7	498	4 US-09-519-232-57	Sequence 57, App1
45	193.4	9.5	498	4 US-09-519-232-31	Sequence 31, App1

## ALIGNMENTS

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RESULT 1
US-09-519-232-3
; Sequence 3, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weisio, Laura
; APPLICANT: Williams, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RFP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 1731
; TYPE: DNA
; ORGANISM: Lycopersicon esculentum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1728)
; OTHER INFORMATION: Full length tomato cDNA sequence
US-09-519-232-3
Query Match      28.9%; Score 590.2; DB 4; Length 1731;
Best Local Similarity 65.2%; Pred. No. 2.8e-121;
Matches 906; Conservative 0; Mismatches 468; Indels 15; Gaps 2;
QY      356 AGAGGTGAGTCTGGGTACGAGGCGCTGCTGCTTCACCTTACAGCGGCC 415
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DB      308 AAGAGTATAGGTGAGTGTGATGCGGTGCTGCTGCTTGTGTATAGTGAA 367
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QY      416 GCGTCGCGACCTGCCAAGCGCGCTGCTGCTGCGACGAGACTGGCGCCACGTCG 475
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QY      536 TGCGCAGCTCACCACTCTTCAGCGCGCTCTCTTATGCTCTTGAATAGTGAAG 595
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DB      488 TCTCTAATGTGTCGACAAATTTCAGACACCTATTTGATTTCTTGACAAAGCTGTAG 547
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QY      596 TGATTAACCTTATGATCTTATGCTGTCGCAACTTATGCAACAATCTTGATGAAC 655
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DB      548 CAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 607
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QY      656 TGCTTGAAGATGCTTGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 715
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Db 608 TACTTCCAGATGATGATTAATATTTGTAAGTCTTAATGTTATGATTAATCAATCCCTTGATA 667  
QY 716 AGTCATTTGCTCCAGATGTTATTCAGACATTAATGATGACAGCTTAAGCCTCGGATTA 775  
Db 668 AGTCCTTGCTCATGATGATTTGTAACAATCAATCAATGATGATGATGATGATGATGATGAT 775  
QY 776 TTTTACACCAAAACAAAGGATTTCTTAACAACATGATGAGGATTAACAGACCTTG 835  
Db 728 AAGGCTCTAAAGCAATGATGATTTCTGATTAACATGTTAAAGGATTAACAGACCTTG 835  
QY 836 ACTCTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 895  
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RESULT 2  
US-09-519-232-1  
; Sequence 1, Application US/09519232  
; Patent No. 6528702  
; GENERAL INFORMATION:  
; APPLICANT: Salomon, John  
; APPLICANT: Weislo, Laura  
; APPLICANT: Williams, Michael  
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF  
; FILE REFERENCE: S-30857A/RTP2095  
; CURRENT APPLICATION NUMBER: US/09/519,232  
; NUMBER OF SEQ ID NOS: 74  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 1  
; LENGTH: 1767  
; TYPE: DNA  
; ORGANISM: Nicotiana tabacum  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1)..(1764)  
; OTHER INFORMATION: Full length tobacco cDNA sequence  
US-09-519-232-1  
Query Match 27.6%; Score 563.4; DB 4; Length 1767;  
Best Local Similarity 64.3%; Pred. No. 2,4e-115;  
Matches 884; Conservative 0; Mismatches 476; Indels 15; Gaps 2;  
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QY 416 GCGTGGAG 475  
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QY 776 TTTACAG 835  
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QY 836 ACTCTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 895  
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RESULT 4  
US-08-989-478-6  
Sequence 6, Application US/08989478  
Patent No. 5986082

## GENERAL INFORMATION:

APPLICANT: Uknes, Scott  
APPLICANT: Hunt, Michelle  
APPLICANT: Steiner, Henry-John  
APPLICANT: Ryals, John  
TITLE OF INVENTION: ALTERED FORMS OF THE NIMI GENE CONFERRING  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 5986082artis Corporation  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: No. 5986082th Carolina  
COUNTRY: USA  
ZIP: 27709

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:

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APPLICATION NUMBER: US/08/989,478
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/033,177
FILING DATE: 13-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 2011 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
ORIGINAL SOURCE:
ORGANISM: Arabidopsis thaliana
FEATURE:
NAME/KEY: misc feature
LOCATION: 1..2011
OTHER INFORMATION: /note= "NIMI cDNA sequence"
NAME/KEY: CDS
LOCATION: 43..1824
OTHER INFORMATION: /product= "NIMI protein"
US-08-989-478-6

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Query Match 20.6%; Score 420.6; DB 2; Length 2011;  
Best Local Similarity 58.4%; Pred. No. 1e-83;  
Matches 823; Conservative 0; Mismatches 557; Indels 30; Gaps 4;

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Db      394  GCGAAGATTAAGAGTGGGTTGAGTGGTGTGAGCTTTGGCTTATGTTACAGC 453
QY      412  GCGCGCTCGGCACTGCGCAAGCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCT 471
Db      454  AGCAGAGTGAACCGCGCTTAAGAGTTCTGAATGGCAGACGAGAATGCTGCAC 513
QY      472  GTCGGGTGCAACCGCGCGTTCATGAGCGAGTCTTCTGCTGCTGCTGCTGCTG 531
Db      514  GTGGCTTGGCGCGCGCGGATTTCAATGTTGAGGTTCTCTATTGGCTTATCTTC 573
QY      532  CAGGTGCGGAGCTCAACAACTCTTCCAGCGGCGTCTCCTGATGCTTGAATG 591
Db      574  AAGATCCCTGAATTAATCTCTATCAAGAGCACTTATGACGTTGAGCAAAATT 633
QY      592  GAAGTATTAACCTTCTATGATCTATCTGTTGCCAATTATGCAACAATCTGCA 651
Db      634  GTTATAGAGCACTTGTATTAATCAAGCTTCTGAATATATGTTAGTAAAGCTT 693
QY      652  AAATGCTTGAAGAGCTTGAATATGATGATGATGATGATGATGATGATGATG 711

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Db 694 AAGCTATTGATAGATGTAAGATTAATGTCAGTCTAATGATGATATGTTAGTCTT 753  
Oy 712 GAGAAATCATTCCTCCAGATGTTATCAAGCAGATTAATGATGACGCCCTAAGCCTCGA 771  
Db 754 GAAATTCATTTCGCGAAGAGCTTTGTAAGAGATTAATGATGATGAAGCTTTGGT 813  
Oy 772 TTAATTTCAACGAAAAAAGAGGATTTCTTAACAAACATGTGAGAGATACAGAGCC 831  
Db 814 TTGAGAGTACTTAAAGTAAAG-----AAACATGTCGATGATGATTAAGGCA 861  
Oy 832 CTGGAATCTGACGATGATAGATGATGACGATGCTGCTACTGTAAGAGACAGCAATCTT 891  
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Oy 1133 AAAAAGGAGATTAATCTTTGGGGTTTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1191  
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Oy 1489 ATGACAGCACTCTCCAAAACAGTGAAGTCTGAGAAAGCTTTTCCCGCATGTTGAAAC 1548  
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Db 1702 AAGGCTTTAGTAGAGACATTTGGAATTAAGAAATTTGCTCCTGACAGATTCGACTTCT 1761  
Oy 1714 TGACATCGATCGGGGCGATTCGACCAAG 1743  
Db 1762 TCCACATCGAATCAACCGGTGAAAGAG 1791

RESULT 5  
US-08-989-478-7  
Sequence 7, Application US/08989478  
Patent No. 5986082  
GENERAL INFORMATION:  
APPLICANT: UKnes, Scott  
APPLICANT: Hunt, Michelle  
APPLICANT: Steiner, Henry-York  
TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING  
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 5986082artis Corporation  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: No. 5986082th Carolina  
COUNTRY: USA  
ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/989,478  
FILING DATE:  
CLASSIFICATION:  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/033,177  
FILING DATE: 13-DEC-1996  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997  
Prior APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,022  
FILING DATE: 10-JAN-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: PF/5-21214/PL/CGC1911  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919) 541-8587  
TELEFAX: (919) 541-8689  
INFORMATION FOR SEQ ID NO: 7:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2011 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 43..1824  
OTHER INFORMATION: /product= "altered form of NIM1"  
OTHER INFORMATION: /note= "Serine residues at amino acid positions 55 and 59 in  
OTHER INFORMATION: wild-type NIM1 gene product have been changed to Alanine  
residues."  
FEATURE:  
NAME/KEY: misc\_feature  
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OTHER INFORMATION: /note= "nucleotides 205 and 217

Query Match	20.6%	Score 420.6;	DB 2;	Length 2011;
Best Local Similarity	58.4%	Pred. No. 1e-83;		
Matches 823; Conservative	0.0	Microhomology 77		

QY	352	GGGAGAGAGTGAAGTCCGGGTACGAGACGGCTGCGGCTGCTGCATCACTCACTCAACG	411
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QY	412	GCCCGCGTGGCGACCTGCTCCCAAGCCGCGCTCTGCGTCCGACGACGACCTGCGCCAC	471
Db	454	AGCAGAGTGAACCCCGCTTAAGAGATTCTGAATGCGACACAGAAATTCGCGCAC	513
QY	472	GTCGGGTGCACCCCGCGCTGCGCTTCAATGCGCAGAGTCTCTCCCGCTCCACCTTC	531
Db	514	GTGGCTTGGCGCGCGCGGTGAAATTTTCATGTGAAGGTTCTCTATTTGGCTTTCAATCTTC	573
QY	532	CAGGTGCGGAGCTCACCACTTCTTCACGCGCGTCTCCTTGATGTCTTGTATAGGTT	591
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QY	592	GAAATGATTAACCTTCAATTGATCTTATCTGTTGCCACTTATGCAACAAATCTTGATG	651
Db	634	GTTATAGAGCACATTTGTTATCTACAGCTGTCAATATATGTGTAAAGCTTGATG	693
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QY	772	TTATATTCACACAAAAACAGGATTTCTTAACAAACATGTGAGAGATACACAGAGCC	831
Db	814	TTGAGAGTACTTAAAGTAAAG-----AAACATGTCTCGAATGTACATTAAGGCA	861
QY	832	CTTGACTCTGACGATGTAGCTATGTCAGATGCTGCTCACTGAAAGACAGACAAATCTT	891
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Db 1702 AAGGCGTTTAGTAGAGGCAATTTGGAATTAGGAATTTTCCTCTGACAAATTGCAATTCCT 1761

Qy 1714 TCGACATCGAATCGGGGGCAATTCGACCAAG 1743

Db 1762 TCCACATCGAAATCAACCGGTGGAAGAGG 1791

RESULT 6  
US-08-996-685-6

; sequence 6, Application US/08996685  
 ; Patent No. 6031153

APPLICANT: Ryals, John

APPLICANT: Uknes, Scott  
APPLICANT: Molitor, Anthony

APPLICANT: Ruess, Wilhelm  
APPLICANT: Knauf-Reiter Ger

APPLICANT: Kung, Ruth  
APPLICANT: Kessmann, Helmut

TITLE OF INVENTION: METHOD FOR

CORRESPONDENCE ADDRESS:  
ADDRESS: No. 50143

STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park

STATE: No. 6031153th Caroli  
COUNTRY: USA

DATE: 2/1/09  
COMPUTER READABLE FORM:

COMPUTER: IBM PC compatible  
OPERATING SYSTEM: DOS 3.31

SOFTWARE: PatentIn Release  
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/9  
FILING DATE:

CLASSIFICATION:  
PRIOR APPLICATION DATA:

FILED DATE: 6-DEC-1996  
PRIOR ADDITION DATE:

APPLICATION NUMBER: US 60/0  
FILING DATE: 27-DEC-2000

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/001

FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:

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APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,024
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/875,015
FILING DATE: 16-JUL-1997
ATTORNEY/AGENT INFORMATION:
NAME: Weig, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21215/Pl/CGC1912
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 2011 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
ORIGINAL SOURCE:
ORGANISM: Arabidopsis thaliana
FEATURES:
NAME/KEY: misc feature
LOCATION: 1..2011
OTHER INFORMATION: /note= "NIM1 cDNA sequence"
FEATURE:
NAME/KEY: CDS
LOCATION: 43..1824
OTHER INFORMATION: /product= "NIM1 protein"
US-08-996-685-6

Query Match      20.6%; Score 420.6; DB 3; Length 2011;
Best Local Similarity 58.4%; Pred. No. 1e-83;
Matches 823; Conservative 0; Mismatches 557; Indels 30; Gaps 4;

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RESULT 7  
US-08-996-685-7

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; Sequence 7, Application US/08996685
; Patent No. 6031153
; GENERAL INFORMATION:
; APPLICANT: Ryals, John
; APPLICANT: Friedrich, Leslie
; APPLICANT: Uknes, Scott
; APPLICANT: Molina, Antonio
; APPLICANT: Ruess, Wilhelm
; APPLICANT: Knauf-Belter, Gertrude
; APPLICANT: Kung, Ruth
; APPLICANT: Kessmann, Helmut
; APPLICANT: Oostendorp, Michael
; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESS: No. 6031153artis Corporation
; STREET: 3054 Cornwallis Road
; CITY: Research Triangle Park
; STATE: No. 6031153th Carolina
; COUNTRY: USA
; ZIP: 27709
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/996,685
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/761,543
; FILING DATE: 6-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,378
; FILING DATE: 27-DEC-1996
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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,382
; FILING DATE: 27-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/034,730
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,021
; FILING DATE: 10-JAN-1997
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; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 60/035,024
; FILING DATE: 10-JAN-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/875,015
; FILING DATE: 16-JUL-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Meigs, J. Timothy
; REGISTRATION NUMBER: 38,241
; REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (919) 541-8587
; TELEFAX: (919) 541-8689
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 2011 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; FEATURE:
; NAME/KEY: CDS

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; LOCATION: 43..1824
; OTHER INFORMATION: /product= "altered form of NIM1"
; OTHER INFORMATION: /note= "Serine residues at amino acid positions 55 and 59 in
; OTHER INFORMATION: wild-type NIM1 gene product have been changed to Alanine
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: 205..217
; OTHER INFORMATION: /note= "nucleotides 205 and 217
; OTHER INFORMATION: changed from T's to G's compared to wild-type sequence."
; US-08-996-685-7

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Query Match      20.6%; Score 420.6; DB 3; Length 2011;
Best Local Similarity 58.4%; Pred. No. 1e-83;
Matches 823; Conservative 0; Mismatches 557; Indels 30; Gaps 4;

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US-08-989-478-11			
Sequence 11, Application US/08989478			
Patent No. 5986082			
GENERAL INFORMATION:			
APPLICANT: Uknes, Scott			
APPLICANT: Steiner, Henry-York			
APPLICANT: Ryals, John			
TITLE OF INVENTION: ALTERED FORMS OF THE NIMI GENE CONFERRING			
DISEASE RESISTANCE IN PLANTS			
NUMBER OF SEQUENCES: 32			
CORRESPONDENCE ADDRESS:			
ADDRESSEE: No. 5986082artis Corporation			
STREET: 3054 Cornwallis Road			
CITY: Research Triangle Park			
STATE: No. 5986082th Carolina			
COUNTRY: USA			
ZIP: 27709			
COMPUTER READABLE FORM:			
MEDIUM TYPE: Floppy disk			
COMPUTER: IBM PC compatible			
OPERATING SYSTEM: PC-DOS/MS-DOS			
SOFTWARE: Patentin Release #1.0, Version #1.30			
CURRENT APPLICATION DATA:			
APPLICATION NUMBER: US/08/989,478			
FILING DATE:			
CLASSIFICATION:			
PRIOR APPLICATION DATA:			
APPLICATION NUMBER: US 60/033,177			
FILING DATE: 13-DEC-1996			
PRIOR APPLICATION DATA:			
APPLICATION NUMBER: US 60/034,379			

	FILING DATE:	27-DEC-1996	
	PRIOR APPLICATION DATA:		
	APPLICATION NUMBER:	US 60/034,382	
	FILING DATE:	27-DEC-1996	
	PRIOR APPLICATION DATA:		
	APPLICATION NUMBER:	US 60/034,730	
	FILING DATE:	10-JAN-1997	
	PRIOR APPLICATION DATA:		
	APPLICATION NUMBER:	US 60/035,021	
	FILING DATE:	10-JAN-1997	
	PRIOR APPLICATION DATA:		
	APPLICATION NUMBER:	US 60/035,022	
	FILING DATE:	10-JAN-1997	
	ATTORNEY/AGENT INFORMATION:		
	NAME:	Meliga, J. Timothy	
	REGISTRATION NUMBER:	38,241	
	REFERENCE/DOCKET NUMBER:	PF/5-21214/P1/CGC1911	
	TELECOMMUNICATION INFORMATION:		
	TELEPHONE:	(919) 541-8587	
	TELEFAX:	(919) 541-8689	
	INFORMATION FOR SEQ ID NO:	11:	
	SEQUENCE CHARACTERISTICS:		
	LENGTH:	1608 base pairs	
	TYPE:	nucleic acid	
	STRANDEDNESS:	single	
	TOPOLOGY:	linear	
	MOLECULE TYPE:	cDNA	
	FEATURE:		
	NAME/KEY:	CDS	
	LOCATION:	43..1608	
	OTHER INFORMATION:	/product= "Altered form of NIM1"	
	US-08-989--478-11	/note= "C-terminal deletion compared to wild-type NIM1."	
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Best Local Similarity	59.8%;	Pred. No. 8.4e-82;	
Matches 730;	Conservative 0;	Mismatches 475;	Indels 15; Gaps 2;
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OY	412	GCGCGGTGGCGAAGCTGCCCAAGCGCGCTGCTCTGGTGAAGAGACCTGCGCCAC	471
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QY 952 CTTTGGATCTCGCATGCTGAGATGTTATCATGAAACCCAGAGGTTATCTGTTCTT 1011  
DB 982 CTTTAAACCTTGAATCTTGGCGGATGTCACCATGGAATCCGAGGGGATATACGGTCTT 1041  
QY 1012 CACATGCTGCGAGCGCAAGAGAGCTTAATCATGTCCTCTCTCTTTTAAACCAAGGGGCT 1071  
DB 1042 CATGTCCTGCGATGCGGAGAGAGCCCAATTAATCATGTCCTCTCTCTTTTAAACCAAGGGGCT 1071  
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DB 1162 ATGGCGGTTGAATGTAATATATCCGAGAGCAATGCAAGCATTTCTCAAAAGCGGACTA 1221  
QY 1192 TGTATGAATATCTGAGCAAGCTGAAGAGAGCCCACTCGAGAGAGCATGACTT 1251  
DB 1222 TGTATGAATATCTGAGCAAGAGAGCCCACTCGAGAGAGCATGACTTCTCC 1281  
QY 1252 TCTCTGCAATGCGAGGTGAGAGTCAAGAGAGAGTCTGATCTTGAAGAGCATG 1311  
DB 1282 TCTTTGCGATGGCGCGGATGATTAAGAGTGAAGTCTGATCTTGAAGAGATAGGTT 1341  
QY 1312 GCTTTGCGAGAGATTATGTTTCCGATGAGAGCAAGATGAGATGATTTGCTCAAGT 1371  
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QY 1372 GATGACCTTTGGAATTTAATCTG---GTTCTGCTGCAATTCACCTCTGAAAGCA 1428  
DB 1402 AAGGGAATGAGTATGATGATGATGATGATGATGATGATGATGATGATGATG 1461  
QY 1429 CGGACATGTTGATTTAATGAAGTCTTTCTTAATGAAGAGAGCACTTAAGTCCG 1488  
DB 1462 AGAATCATGCGGAGTGAAGATGACCTTTGAGATCTTAAGAGAGATCAAAAGTAA 1521  
QY 1489 ATGACAGCACTCTCAAAACAGTGAAGTCTGAGTGGGAAAGCTTTTCCCGGATGTTGAAC 1548  
DB 1522 CTAAGAGCGCTTTTAAGACCGTGAAGCTCGGAGAAAGATTTCCCGGCTGTTCCGGA 1581  
QY 1549 GTGCTGCAAAATCATGGA 1568  
DB 1582 GTGCTGCAAGATTTAAGAA 1601

## RESULT 9

US-08-996-685-11  
Sequence 11, Application US/08996685  
Patent No. 6031153  
GENERAL INFORMATION:  
APPLICANT: Ryals, John  
APPLICANT: Friedrich, Leslie  
APPLICANT: Uknes, Scott  
APPLICANT: Molina, Antonio  
APPLICANT: Rueser, Wilhelm  
APPLICANT: Knaut-Beiter, Gertrude  
APPLICANT: Kung, Ruth  
APPLICANT: Kessmann, Helmut  
APPLICANT: Oostendorp, Michael  
TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSER: No. 6031153artis Corporation  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: No. 6031153th Carolina  
COUNTRY: USA  
ZIP: 27709

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent in Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/996,685  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/761,543  
FILING DATE: 6-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,378  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,022  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,024  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/875,015  
FILING DATE: 16-JUL-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912  
TELEPHONE: (919) 541-8587  
TELEFAX: (919) 541-8689  
INFORMATION FOR SEQ ID NO: 11:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1608 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 43..1608  
OTHER INFORMATION: /product= "Altered form of NIM1"  
US-08-996-685-11 /note= "C-terminal deletion compared to wild-type NIM1."

Query Match 20.2% Score 411.8; DB 3; Length 1608;  
Best Local Similarity 59.8%; Pred. No. 8,4e-82;  
Matches 730; Conservative 0; Mismatches 475; Indels 15; Gaps 2;

QY 352 GCGCAGAGGTGAGGTGCGGTGAGAGCGCTGCGTGTGCTGACATCACTTACAGC 411  
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QY 412 GCGCGCTGCGCGACCTGCGCCAGCGCGCGCTGCTGCGTGAAGAGACTGCGCCAC 471  
DB 454 AGCAGATGAGACCGCGCGCTTAAGAGATTCTGAATGCGCAGACGAAATGCGCCAC 513  
QY 472 GTGGGTGCGACCGCGCGCTGCGGTGATGAGCGAGTCTCTTGGCGCGCTTCCACCTTC 531  
DB 514 GTGGCTTGCAGCGCGCGGTGAGATTTCATGTTGAGAGTTCATTTATTTGCTTCACTTC 573

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592 GAAGTAGATTAACCTTATGATCTTATGCTGTTGCCAAGCTTATGCAACAACTTGCATG 651  
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694 AAGCTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 753  
712 GAGAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 771  
754 GAAAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 813  
772 TTAATTTCCAGGAAAGGATTTCCAAACATGCTGAGAGATGACAGAGCC 831  
814 TTGAGAGTACCTAAAGTAAAG-----AAACATGCTCGAATGATTAAGCA 861  
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862 CTGAGCTGAGAGTATGAGTATGAGTATGAGTATGAGTATGAGTATGAGTATGAGTAT 921  
892 GATGATGCTTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 951  
922 GATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 981  
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1549 GTGCTGCAAGATCATGGA 1568  
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RESULT 10  
US-08-989-478-9  
Sequence 9, Application US/08989478  
Patent No. 5986082  
GENERAL INFORMATION:  
APPLICANT: Unes, Scott  
APPLICANT: Hunt, Michelle  
APPLICANT: Steiner, Henry-York  
TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING  
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 5986082artis Corporation  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: No. 5986082th Carolina  
COUNTRY: USA  
ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/989,478  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/033,177  
FILING DATE: 13-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,022  
FILING DATE: 10-JAN-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Weigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919) 541-8587  
TELEFAX: (919) 541-8689  
INFORMATION FOR SEQ ID NO: 9:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 1597 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: CDNA  
FEATURE:  
NAME/KEY: CDS  
LOCATION: 1..1410  
OTHER INFORMATION: /product= "Altered form of NIM1"  
OTHER INFORMATION: /note= "N-terminal deletion compared to wild-type NIM1"  
OTHER INFORMATION: sequence."  
US-08-989-478-9  
Query Match 20.1%; Score 409.2; DB 2; Length 1597;  
Best Local Similarity 58.3%; Pred. No. 3.1e-81;  
Matches 808; Conservative 0; Mismatches 548; Indels 30; Gaps 4;  
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Qy 556 TTCAAGCGCGCTCTCTTGAATGCTTATAGTTGAAGTAGATACTTCTATTGATC 615  
Db 184 TATCAGAGGCACTTATTTGACGTTGTACACAAATGTTTATAGAGGACATTTGGTTATA 243  
Qy 616 TTATCTGTGCACTTATTTGCAACAAATCTTGCATGAAACCTGCTGAAAGATCCCTGAT 675  
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Qy 736 ATCAAGAGATTTATTTATGACAGCCCTGAGTATTAATTTCAACGAGAAACAGGGA 795  
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Qy 1036 CCTAAATCATGTTCTCTCTTTTAAACAAGGGGCTGACACAGAGATGTTTCAATGAT 1095  
Db 652 CCACAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 711  
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Qy 1156 ACCGAGAGAGAAACCTTCTCCAAAGATGATGATGATGATGATGATGATGATGATGATGAT 1215  
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Db 892 TTGAAGATGAGCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 951  
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Db 952 ACGGAGAGAGAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1452  
Qy 1396 ---GGTTCTGTGCAAAATCCACCTCGAAGAGACAGGACAACTGTTGATCTTAATGAA 1452  
Db 1012 ACTAGCTCGAGCTGACCGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1071  
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Qy 1513 GAGCTCGGAGAAAGCTTTTCCCGCATGTTGCAACGTCCTGACAAATCATG----- 1566  
Db 1132 GAGCTCGGAGAAAGATTTCTTCCCGCATGTTGCAACGTCCTGACAAATCATG----- 1566  
Qy 1567 GATATGAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1191  
Db 1192 GAGGACTTGAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1617  
Qy 1618 AGGAGAGAGGTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1251  
Db 1252 AAGCAAGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1677  
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Qy 1738 CCAAGG 1743  
Db 1372 AAGAGG 1377

RESULT 11  
US-08-996-685-9  
Sequence 9, Application US/08996685  
Patent No. 6031153  
GENERAL INFORMATION:  
APPLICANT: Ryals, John  
APPLICANT: Friedrich, Leslie  
APPLICANT: Uknes, Scott  
APPLICANT: Molina, Antonio  
APPLICANT: Ruess, Wilhelm  
APPLICANT: Knaut-Belter, Gertrude  
APPLICANT: Kung, Ruth  
APPLICANT: Kesemann, Helmut  
APPLICANT: Oostendorp, Michael  
TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 6031153art's Corporation  
STREET: 3054 Cornwallis Road  
CITY: Research Triangle Park  
STATE: No. 6031153th Carolina  
COUNTRY: USA  
ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/996,685  
FILING DATE: US/08/996,685  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/761,543  
FILING DATE: 6-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,378  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997





Best Local Similarity 59.8%; Pred. No. 2,56-79%;		
Matches 715; Conservative 0; Mismatches 466; Indels 15; Gaps 2;		
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OY	436	GGCGGCGGCTCTCGCCGTCGACGAGGAACTGGGCCCACTCGGGGCCACCCCGCGTGGCG 495
Db	64	GGAATTTTCTGAATGCGGACGAGAAATGTGCGACCTGGCTTGGCCGGCGCGCGTGGAT 123
OY	496	TTCAATGGCGAGGCTCTCTTGGCCGCTCCACCTTCAGGTCGCGCGACTCACCAACTCTC 555
Db	124	TTCAATGTTGAGGTTCTCTATTGGCTTTATCTTCAAGATCCCTGAATTAATTAATCTCTC 183
OY	556	TTCCAGCGGGCTCTCTTGATGTCCTTGATTAAGTTGAATGAATPAACCTTCTAATGATC 615
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OY	616	TTATCTGTGCAACTTATGCAACAAATCTTGACATGAACCTGCTGAAGAATGCTTGTAT 675
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OY	676	ATGGTACTCGGTCGAACCTTGAACATGATTAAGTCTTGAGAAGTCATGGCTCCAGATGT 735
Db	304	ATTATTTCTCAAGTCAATATGTAGATATGTGTATGCTTGAAGATCATATGCGGAAGACTT 363
OY	736	ATCAGCAGATTTATTTGATGACGCGCTAAGCCTGSGATTAATTTACACGAGAAAACAGGGA 795
Db	364	GTTTAAAGATTAATGTGATGACGTAAAGACCTTGTTTGAAGGTACTTAAAGTTAAG--- 420
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Db	421	-----AAACATGCTCGAATGTACATPAGGCACTTGACTCGATGTGATTTAGGTTA 471
OY	856	GTCAGATGCTGCTCACTGAAGACACAGAAATCTTGATGATGCGTTTGGACATGCACTAC 915
Db	472	GTCAAGTTGCTTTTGAAGAGGATCACACCAATCTTATGATATGCGTGTCTCTTCATTTCC 531
OY	916	GGCGTCGAACATTTGTGTACTCCAAATTAACAACGAGCTTTTGGATCTCGCACTTGACAT 975
Db	532	GCTTGTGCAATTTGTCATGTGAAGACCGCAACAGATTTTMAAATCTTGATCTTTGCCGAT 591
OY	976	GTTTATCATGAAACCCAGAGGTTATACTGTTCTTCAATGCTGTCGAGCGCAAGAG 1035
Db	592	GTCAACATAGGAATCGAAGGGATATACGCTGTTCACTGTGTCGATGCGGAAGAG 651
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Db	652	CCACAATGTACTATCTCTATTGGAAGAAAGGTGCAAGTCATCAGAAAGCAACTTGTGAA 711
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Db	772	CCGGAGCAATGCAAGCATTTCTCTCAAGGCCACTATGTTAGAAAATCTAAGGCAAGAA 831
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; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
; LENGTH: 1803
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1803)
; OTHER INFORMATION: AtNMLc4-2 genomic sequence
US-09-519-232-19

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Query Match      18.6%; Score 380.4; DB 4; Length 1803;
Beet Local Similarity 57.4%; Pred. No. 7.9e-75;
Matches 778; Conservative 0; Mismatches 551; Indels 27; Gaps 4;

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QY 411 CGGCGCGTCCGCGACCTGCGCAAGCGCGGCTCTGCGTGCAGCAGGACTGCGCCA 470
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DB 408 CGGCAAGTGAAGTCCCGCGCAAGGAGGCTTCTGCTTGGTGAAGACGATTGTTGCA 467
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QY 471 CGTGGGTCGCAACCGCGCGTCCGCTTCATGCGCGAGTCTCTTGCAGCGCTCCACTT 530
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DB 468 CGGCGCTTCCGCGTCAAGGTGATTTCATGCGAGGTTCTTATCTGCTTCTGTTT 527
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DB 648 GAAGCTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 707
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QY 711 TGAGAGTCAATCTCTCAAGTGTATCAAGAGATTTATGATGACGCTTAAGCTCGG 770
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 708 TGAAGAGTCTTCTCTCAACATTTTCAAGCAATCATAGACATCGCGAAGCGCTCTG 767
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 771 ATTAAATTTCAAGAAAACAAAGGATTTCTTAACAAACATGTAGAGAGATACAGAGC 830
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 768 TCTAGAGCACTTAA-----CTAAGAAAGCATGTCAAGAACATATATCAAGGC 815
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 831 CCTTGACTCTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 890
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 816 GCTAGACTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 875
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 891 TGAATGAGCTTGAAGCTGACCTAGACCGGTCAACATTTGATCCCAAAATTAACAACGA 950
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 876 CAGTAGAGGCTATGCTCTTCTTATTTGCTATCGCTCACTGCGCTGTGAAGCCGCTATGA 935
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 951 GCTTTTGATCTTGCAGCTTGCAGATGTTATCATAGAAACCAAGAGTTATATCTGTTCT 1010
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 936 TCTCTCTGAGCTTGAAGCTTGCAGATGTTAACTTAAGAAATCGACGGGATACATGTCGT 995
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1011 TCAATTTGCTGCGAGCGAAGAGCTTAAATCATTTGTCCTCTTTTAACTAAGGGGCG 1070
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 996 TCAATTTGCTGCGAGCGAAGAGCTTAAATCATTTGTCCTCTTTTAACTAAGGGGCG 1055
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1071 TCAACAGAGAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1130
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1056 AATATATTTTGAACAACATTTGATGATGATGATGATGATGATGATGATGATGATGATGAT 1115
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1131 AAAACAAGGAGATTACTTTGGGTTACGAAAGAGAAAACCTTCTCCAAAAGATAGTT 1190
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DB 1116 TAAAGCGATGACTACAAAACATAGTACGAGAGCGGTAGCCCTTCTGTGAAGCGGATT 1175
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1191 ATGTATTGAATTAATCTGAGCAAGCTGAAGAGG--ACCCAACCTCGAAGAGATC 1247
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1176 ATGCATAGAGTACTTGAAGATGAAACAAAACATAGAAATTTTTCGCTTATAGAGCTTC 1235
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QY 1248 AGTTCTCTTTCATAGCAGGTGAGAGTCTACGAGAGAGTGGTCTGTATCTTGAACCG 1307
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DB 1236 ACTTCTCTTCCAGTAACTCCAGAGAGAGTGAAGATGAGTGGTCTGTATATGAAACCG 1295
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QY 1308 AGTTGCTTGGCAAGATTAATGTTTCCATGAGAGCAAGTATGCAATGATATTTGCTCA 1367
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1296 AGTTGACATCTTCTGACTTCTTCTTCCAGTGAACCTGAACCTGACAGGATTTGCAA 1355
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QY 1368 AGTGTGAACTTTGGAATTTA--ACCTGGTCTGCTGCAATCCACTCTGTAAG 1424
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DB 1356 ATTTGAGAAACATGCGAGTTTACAGCTTCTAGTCTGAGACCTGATCATCAATTTGTTGA 1415
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QY 1425 ACAACGAGCACTGTTGATCTAAATGAAGTCCCTTCATATGAAGAAAGAACATTTAGC 1484
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DB 1416 AAGCGGACATCACTAGACCTTAAATGAGCGCGCTTCCAAATCCATGAGAAAGCATTTGAG 1475
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QY 1485 TCGATGACAGCACTCTCCAAAACAGTGAAGCTCGGAAAACGTTTTTCCCGGATGTC 1544
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DB 1476 TAGACTTGAAGCACTTTGTAAACCGTGAACCTGGGAAAACGCTACTTCAAGAGATTC 1535
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1545 GAACTGTGCAACAAATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1604
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1536 GCTTGATCACTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1595
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1605 GTCCGCG-----GAGAAAGAAAGAGTTTCAATGACCTGACAGAGATTTCTTCAAGAA 1655
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1596 TCTGAGAAACCGCTACAAAGAAAGCAAGGTATCATGGAATCAACAGAGACTCTGATGAA 1655
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1656 GGCATTCCACGAGACAAAGAGAGAAATGACAGTTC 1691
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1656 GACCTTTAGTGAAGACAAAGAGATGTGAAAGTC 1691
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Search completed: January 23, 2005, 01:00:14  
 Job time : 179 secs

Image with (u,v)



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QY 1 ATGAGCCGCGCCAGCCAGCCAGCTGACCAACGCGTTCTCCGACTGGAACAGCGCTCCGTG 60
Db 128 ATGAGAGCCGCGCCAGCCAGCCAGCTGACCAACGCGTTCTCCGACTGGAACAGCGCTCCGTG 187
QY 61 GAGGAGGAGGAGCGCCGAGCGCGGAGCGCGGAGCGCTGAGGCGCTCCGCGCCCTCTCCGACAC 120
Db 188 GAGGAGGAGGAGCGCCGAGCGCGGAGCGCGGAGCGCTGAGGCGCGCTCCGCGCCCTCTCCGACAC 247
QY 121 CTGCGCGGCGGCTTCGCTCCGCGGAGGACTTCGCGTTCTCCGCGGAGCGCGGAGCTCCG 180
Db 248 CTGCGCGGCGGCTTCGCTCCGCGGAGGACTTCGCGTTCTCCGCGGAGCGCGGAGCTCCG 307
QY 181 GTCCCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 240
Db 308 GTCCCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 367
QY 241 CGAGCCCTTCTCCGCGGCGGCGGCTTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300
Db 368 CGAGCCCTTCTCCGCGGCGGCGGCTTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 427
QY 301 GCGGAGGATGAGCGAGCGGAGCGCTGAGGCTTCGCGGAGGCTTCGCGGCGGCGGCGGCGGAG 360
Db 428 GCGGAGGATGAGCGGAGCGGAGCGCTGAGGCTTCGCGGAGGCTTCGCGGCGGCGGCGGAG 487
QY 361 GTGAGGATGAGGATGAGCGGAGCGCTGAGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGG 420
Db 488 GTGAGGATGAGGATGAGCGGAGCGCTGAGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGG 547
QY 421 GCGGAGGATGAGGAGCGGCGGCGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 480
Db 548 GCGGAGGATGAGGAGCGGCGGCGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 607
QY 481 CACCCCGCGCGCGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 540
Db 608 CACCCCGCGCGCGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 667
QY 541 GAGCTCACCAACTTTCGAGCGGCGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 600
Db 668 GAGCTCACCAACTTTCGAGCGGCGGCTTCGCGGAGGCTTCGCGGAGGCTTCGCGGAGGCTTC 727
QY 601 AACCTTATGATGATCTTATCGTTGCGCACTTATGCAAACTTTCGAGTAACTGCTT 660
Db 728 AACCTTATGATGATCTTATCGTTGCGCACTTATGCAAACTTTCGAGTAACTGCTT 787
QY 661 GAAAGATGCTTGAATATGATGATGCTTCGAGCGGCTTCGAGCGGCTTCGAGCGGCTTCGAG 720
Db 788 GAAAGATGCTTGAATATGATGATGCTTCGAGCGGCTTCGAGCGGCTTCGAGCGGCTTCGAG 847
QY 721 TTGCTTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 780
Db 848 TTGCTTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 907
QY 781 CCGAAGAAACAGGAGATTTCTTAAACAAACATGAGAGAGATACAGAGAGCGCTTCGAGTCT 840
Db 908 CCGAAGAAACAGGAGATTTCTTAAACAAACATGAGAGAGATACAGAGAGCGCTTCGAGTCT 967
QY 841 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 900
Db 968 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1027
QY 901 TTTCGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACT 960
Db 1028 TTTCGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACTGACT 1087
QY 961 CTGCGACTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1020
Db 1088 CTGCGACTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1147
QY 1021 GCGAGGCGAAGAGCGCTTAAATCATTTGCTCCCTTTTAAACAGAGGCGCTTCGACAGCA 1080
Db 1148 GCGAGGCGAAGAGCGCTTAAATCATTTGCTCCCTTTTAAACAGAGGCGCTTCGACAGCA 1207
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QY 1081 GATGTTACATTCGATGAGGAGAAAGCGGTTCAATCTCAAAAAGACTTAAACAAAGAGG 1140
Db 1208 GATGTTACATTCGATGAGGAGAAAGCGGTTCAATCTCAAAAAGACTTAAACAAAGAGG 1267
QY 1141 GATTACTTGGGGTTACCGAAGAGAGAAACCTTCTCCAAAAGATAGTTATGATGAA 1200
Db 1268 GATTACTTGGGGTTACCGAAGAGAGAAACCTTCTCCAAAAGATAGTTATGATGAA 1327
QY 1201 ATATGAGAGAACGTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260
Db 1328 ATATGAGAGAACGTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1387
QY 1261 ATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320
Db 1388 ATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1447
QY 1321 AGGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380
Db 1448 AGGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1507
QY 1381 TTGGAATTTTAACTGAGGTTCTGTCGCAATTCACCTCTGAAAGAGAGAGAGAGAGAG 1440
Db 1508 TTGGAATTTTAACTGAGGTTCTGTCGCAATTCACCTCTGAAAGAGAGAGAGAGAGAG 1567
QY 1441 GATCTTAAATGAAAGTCTTTTCAATATGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500
Db 1568 GATCTTAAATGAAAGTCTTTTCAATATGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1627
QY 1501 TCAGAAACAGTGGAGAGCTCCGAGAAACGCTTTTCCCGAGATGTTGAGAGAGAGAGAGAG 1560
Db 1628 TCAGAAACAGTGGAGAGCTCCGAGAAACGCTTTTCCCGAGATGTTGAGAGAGAGAGAGAG 1687
QY 1561 ATCATGATGATGAAAGTGAATCGGTTTCCCTCGAAGAGAGAGAGAGAGAGAGAGAGAGAG 1620
Db 1688 ATCATGATGATGAAAGTGAATCGGTTTCCCTCGAAGAGAGAGAGAGAGAGAGAGAGAGAG 1747
QY 1621 AAGAGTTTATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680
Db 1748 AAGAGTTTATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1807
QY 1681 AATGACAGTGGGAGGCTTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTC 1740
Db 1808 AATGACAGTGGGAGGCTTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTC 1867
QY 1741 AGGAGATGAAACCAATGTCGCCAAATAGTTGCCAATTTGATGATGATGATGATGATGATGAT 1800
Db 1868 AGGAGATGAAACCAATGTCGCCAAATAGTTGCCAATTTGATGATGATGATGATGATGATGAT 1927
QY 1801 AGCTACTCAGTGAATGTTGCTTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTC 1860
Db 1928 AGCTACTCAGTGAATGTTGCTTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTC 1987
QY 1861 AGGCTTGAACAGTATTAATTTCTTACAGCTATTTGCCCCGTCATTTGTAAGAGAGAGAG 1920
Db 1988 AGGCTTGAACAGTATTAATTTCTTACAGCTATTTGCCCCGTCATTTGTAAGAGAGAGAG 2047
QY 1921 TCATTAAGTCTTGAATCAGAGTGAATTAATTAATTAATTAATTAATTAATTAATTAATTA 1980
Db 2048 TCATTAAGTCTTGAATCAGAGTGAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2107
QY 1981 TTTCAGTGGTTTCTGCTGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2040
Db 2108 TTTCAGTGGTTTCTGCTGTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 2167
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## RESULT 2

US-10-437-963-51266

; Sequence 51266, Application US/10437963

; Publication No. US2004012343A1

; GENERAL INFORMATION:

; APPLICANT: La Rosa, Thomas J.

; APPLICANT: Kovalic, David K.

; APPLICANT: Zhou, Yihua

APPLICANT: Cao, Yongwei  
APPLICANT: Wu, Wei  
APPLICANT: Boukharov, Andrey A.  
APPLICANT: Barbazuk, Brad  
APPLICANT: Li, Ping  
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated with  
FILE REFERENCE: 38-21(53221)B  
CURRENT APPLICATION NUMBER: US/10/437,963  
CURRENT FILING DATE: 2003-05-14  
NUMBER OF SEQ. ID NOS: 204966  
SEQ. ID NO 51266  
LENGTH: 1848  
TYPE: DNA  
ORGANISM: Oryza sativa  
FEATURE:  
OTHER INFORMATION: Clone ID: PAT\_MRT4530\_53675C.1  
US-10-437-963-51266

Query Match 79.8%; Score 1627.2; DB 17; Length 1848;  
Best Local Similarity 94.2%; Pred. No. 0;  
Matches 1741; Conservative 0; Mismatches 8; Indels 99; Gaps 1;

QY 1 ATGAGAGCCGCGACACGACGTCACCAACGCGTTCTCGACTCGGACAGCGCGTCCGTG 60  
DB 1 ATGAGAGCCGCGACACGACGTCACCAACGCGTTCTCGACTCGGACAGCGCGTCCGTG 60  
QY 61 GAGAGAGGAGGAGCGCGACGCGGAGCGCGGAGCGCGGAGCGCGCGCTCCGCGAAC 120  
DB 61 GAGAGAGGAGGAGCGCGACGCGGAGCGCGGAGCGCGGAGCGCGCGCTCCGCGAAC 120  
QY 121 CTGCGCGCGCGGCTTCCGCTCGCGGAGAGCTTCGCGTCTCGCGAGCGCGCATGCGC 180  
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QY 181 GTCCCGGAGCGCGCGCGCGCGCGCGAGCTTCGCGTCTCGCGAGCGCGCGCTCCGCG 240  
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QY 241 CGGAGCGCGCTTCTCGCGCGCGCGCTTCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
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QY 361 GTGAGAGTCGCGGATCGAGAGCGCTGCGGCTGCTGACTTACCTTACAGCGCGCGCTC 420  
DB 361 GTGAGAGTCGCGGATCGAGAGCGCTGCGGCTGCTGACTTACCTTACAGCGCGCGCTC 420  
QY 421 GGGAGCTGCGCAAGGCGGCGCTCTGCGTGAAGAGAGCTGCGCGCGCGCGCGCGTGC 480  
DB 421 GGGAGCTGCGCAAGGCGGCGCTCTGCGTGAAGAGAGCTGCGCGCGCGCGCGCGTGC 480  
QY 481 CACCGCGCGCTGCGCTCATGCGCGAGAGCTCTTCGCGCGCTCGACCTTCAGAGTGC 540  
DB 481 CACCGCGCGCTGCGCTCATGCGCGAGAGCTCTTCGCGCGCGCTCGACCTTCAGAGTGC 540  
QY 541 GAGCTCAACCACTCTTCAGCGCGCGCTCTCTTGATGTCCTTGATTAAGGTTGAAGAT 600  
DB 541 GAGCTCAACCACTCTTCAGCGCGCGCTCTCTTGATGTCCTTGATTAAGGTTGAAGAT 600  
QY 601 AACCTTATATGATCTTATCTGTTGCCAATCTATGCAACAATCTTGCAAGAACTGCTT 660  
DB 601 AACCTTATATGATCTTATCTGTTGCCAATCTTATGCAACAATCTTGCAAGAACTGCTT 660  
QY 661 GAAAGATGCTTGATGATGAGTCGCGTCAAACTTGAATGATCTTGAAGATCA 720  
DB 661 GAAAGATGCTTGATGATGAGTCGCGTCAAACTTGAATGATCTTGAAGATCA 720  
QY 721 TTGCTTCAGATGTTATCAAGAGATTAATGATGACGCGTAAAGCTCGATTAATTCA 780  
DB 721 TTGCTTCAGATGTTATCAAGAGATTAATGATGACGCGTAAAGCTCGATTAATTCA 780

DB 721 TTGCTTCAGATGTTATCAAGAGATTAATGATGACGCGTAAAGCTCGATTAATTCA 780  
QY 781 CCAGAAAAGAGGATTTCTTAACAACATGTGAGAGGATACACAGAGCTTGACTCT 840  
DB 781 CCAGAAAAGAGGATTTCTTAACAACATGTGAGAGGATACACAGAGCTTGACTCT 840  
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DB 841 GACGATGAGAGTACTCAGAGTCTGCTCATGAAAGAGACAAATCTTGATGATGC 900  
QY 901 TTGCACTGACACTGACCGCTGCAACATTTGATCTCAAAATTTCAACCGAGCTTTGGAT 960  
DB 901 TTGCACTGACACTGACCGCTGCAACATTTGATCTCAAAATTTCAACCGAGCTTTGGAT 960  
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DB 961 CTGCACTTGACAGATTTATCATAGAAACCAAGAGGTTATCTGTTCTTCACTTCT 1020  
QY 1021 GCGAGGCGAAGAGAGCTTAATCATTTCTCTCTTTTAAACAAGGCGCTCGACACGA 1080  
DB 1021 GCGAGGCGAAGAGAGCTTAATCATTTCTCTCTTTTAAACAAGGCGCTCGACACGA 1080  
QY 1081 GATGTTACATTCGATGAGGAAAGCGTTCAATCTCAAAAAGACTTAACAAAACAGG 1140  
DB 1081 GATGTTACATTCGATGAGGAAAGCGTTCAATCTCAAAAAGACTTAACAAAACAGG 1140  
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DB 1201 ATACTGAGAGCACTGAAAGAGGACCCCAACCTCGAGAGACATCATGTTCTTTCGA 1260  
QY 1261 ATGGCAGTGAAGGTCTTAAGAGAAAGTTCTGTATCTTGAAACCG----- 1307  
DB 1261 ATGGCAGTGAAGGTCTTAAGAGAAAGTTCTGTATCTTGAAACCGAGGTAACTTCAC 1320  
QY 1308 ----- 1307  
DB 1321 ATATATCATATAGGTTCAATATGCTGTTCTTTGGAATTAATCTGTTTGGCTTGGC 1380  
QY 1308 -----AGTTGCTTTGGCAAGATTAATGTTCCGATGAG 1341  
DB 1381 AACAAAAGAGATTTTGTACATGATGTTGCTTTGGCGAGATTAATGTTCCGATGAG 1440  
QY 1342 GCAAGATGACATGATATGCTCAAGTGAATGAACTTTGGAATTTAACTGGGTTCT 1401  
DB 1441 GCAAGATGACATGATATGCTCAAGTGAATGAACTTTGGAATTTAACTGGGTTCT 1500  
QY 1402 GGTGCAAAATCACCTCTGTAAGAGCAACGGAACAAGTTGATCTAAATGAAGCTTTTC 1461  
DB 1501 GGTGCAAAATCACCTCTGTAAGAGCAACGGAACAAGTTGATCTAAATGAAGCTTTTC 1560  
QY 1462 ATATGAAGAGAGACATTAAGCTCGATGACACACTCTCAAAACAGTGAAGCTCGGG 1521  
DB 1561 ATATGAAGAGAGACATTAAGCTCGATGACACACTCTCAAAACAGTGAAGCTCGGG 1620  
QY 1522 AAACGCTTTTCCCGGAGTGTGAACGTGCTGACAAATCATGATGATGAACATGAT 1581  
DB 1621 AAACGCTTTTCCCGGAGTGTGAACGTGCTGACAAATCATGATGATGAACATGAT 1680  
QY 1582 CCGGTTTCCCTGGAGAGACAGTCCGCGGAGAGAGAGGTTTCAATGACCTTGAC 1641  
DB 1681 CCGGTTTCCCTGGAGAGAGACAGTCCGCGGAGAGAGAGGTTTCAATGACCTTGAC 1740  
QY 1642 GATGTTCTTCAGAGGATTTCCAGAGACAGAGAGAGATGACAGGTGCGGCTTCG 1701  
DB 1741 GATGTTCTTCAGAGGATTTCCAGAGACAGAGAGAGATGACAGGTGCGGCTTCG 1800  
QY 1702 TCGTCTGCTCATGACATGATCGGGGCAATTCGACCAAGAGATGA 1749  
DB 1801 TCGTCTGCTCATGACATGATCGGGGCAATTCGACCAAGAGATGA 1848





FEATURE:  
OTHER INFORMATION: Clone ID: UC-ZMFLB7300C06\_FLI  
US-10-425-114-32356

Query Match 32.9%; Score 671.8; DB 16; Length 1326;  
Best Local Similarity 80.6%; Pred. No. 2.9e-148;  
Matches 816; Conservative 0; Mismatches 182; Indels 15; Gaps 2;

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QY 750 TGATGACGAGCCTTAAGCTCGGATTAATTTCCAGAAAAACAAGGAAATTTCTTAACAACA 809
DB 1 TGATGACAGGGGTAAAGCCTTGATTAATTTCCAGAAAAACAAGGAAATTTCTTAACAACA 60
QY 810 TGTGAGGAGGATACACAGAGCCCTTGACTGACATGATGAGCTAGTGAAGTGTGCT 869
DB 61 TGTAAAGAAATACACAGAGCCTGATTTCTGATGACGTGAGCTAGTGTGCTGCTACT 120
QY 870 CACTGAAGACACACAAATCTTATGATGCGTTGACCTGACCTAGCCGCTGAACATTG 929
DB 121 CAAGAAAGGAAAACTAATCTTATGATGATGATGATGATGATGATGATGATGATGATG 180
QY 930 TGAATCAAAATTAACAACGAGCTTTGATCTGCACTTGCAGATGTTAATCATAGAAA 989
DB 181 CGACTCAAGATACACACAGAACTTCTGATCTCGGCTTGCAGATGTCATCATAGAAA 240
QY 990 CCCAAGAGTTATCTGTTCTTCACTTCTGCGAGGAGGAGAGAGCTTAATCATATTGT 1049
DB 241 CCCAAGAGTTATACGGTCTTCACTTCTGCTCTGATGAGAGGAGAGCTTAATCATATTGT 300
QY 1050 CTCCTTTTAACCAAGGGGCTGACACGACAGATGTTAATTCATGAGGAGAAAGCGGT 1109
DB 301 CTCCTTTTGAACCAAGGGAGCTGCGACATCAGACCTCACTTGTATGACGAAAGACAT 360
QY 1110 TCAAAATCTCAAAAGACTAACAACAAGGAGGAAATTAATTTGGGTTACCAAGAGAAA 1169
DB 361 GAGAGTCTTAAACGACTTAACAAGGAGGAAATTAATTTGGGTTACCAAGAGAAA 420
QY 1170 ACCCTCTCAAAAGATAGTATGATTAATTAATCTGAGAGCAAGCTGAAGAGAGCC 1229
DB 421 GCCTTCTCTTAAAGATTAATTAATTAATTAATTAATTAATTAATTAATTAATTAATTA 480
QY 1230 ACAATCTGAGAGACATCATGTTCTCTTGAATGAGGAGTGAAGTCTACAGAGAGTT 1289
DB 481 GCAACTTGAAGACATCATGTTCTCTTGAATGAGGAGTGAAGTCTACAGAGAGTT 540
QY 1290 GCTGATCTTGAACCAAGGATGCTTTGAGAGGATTAATTTCCGATGAGAGCAAGCT 1349
DB 541 ACTTACTCTTGAACCAAGGATGCTTTGAGAGGATTAATTTCCGATGAGAGCAAGCT 600
QY 1350 AGCAATGATATTTGCTCAATGATGAGAACTTGAATTAATCTGAGGTTCTGTGCAAA 1409
DB 601 AGCAATGATATTTGCTCAATGATGAGAACTTGAATTAATCTGAGGTTCTGTGCAAA 660
QY 1410 TCCACCTCTGAGAAAGCAACGAGCAACCTGTTGATCTAATTAAGGCTTTCATTAATA 1469
DB 661 TCGCTCGCGAGATCAACGAGCAACCTGTTGATCTAATTAAGGCTTTCATTAATA 717
QY 1470 AGAAGAACTTATGCTCGAGTACAGCACTCTCAAAACAGTGAGCTCGGAGAAACGCTT 1529
DB 718 GGAAGAACTTATGCTCGAGTACAGCACTCTCAAAACAGTGAGCTCGGAGAAACGCTT 777
QY 1530 TTTCCCGGATTTGCAACGTCGACAAATCATGATGATGATGATGATGATGATGATGAT 1589
DB 778 CTTCCTCGCGATTTGCAACGTCGACAAATCATGATGATGATGATGATGATGATGATGAT 837
QY 1590 CCTCGGAGAGACAGTCGCGGAGAGAGAGAGAGGTTTTCATGACCTCGAGAGATTTCT 1649
DB 838 CCTCGGAGAGACAGTCGCGGAGAGAGAGAGAGGTTTTCATGACCTCGAGAGATTTCT 897
QY 1650 TTAGAAGGATTTCAACGAGCAACAGAGAGATGATGATGATGATGATGATGATGATGAT 1697
DB 898 CCAGAGGATTTCAACGAGCAACAGAGAGATGATGATGATGATGATGATGATGATGATGAT 957
QY 1698 CTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCGTCG 1750
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DB 958 CTCCTCGTCGACGACGACGACGATCGAGGAGCGCTCGGCTCGAGAGGTGAA 1010

RESULT 6  
US-10-374-780A-595

Sequence 595, Application US/10374780A  
Publication No. US2004001927A1  
GENERAL INFORMATION:

APPLICANT: Sherman, Bradley K  
APPLICANT: Riechmann, Jose Luis  
APPLICANT: Jiang, Cai-Zhong  
APPLICANT: Heard, Jacqueline E  
APPLICANT: Haake, Volker  
APPLICANT: Creelman, Robert A  
APPLICANT: Ratcliffe, Oliver  
APPLICANT: Adam, Luc J  
APPLICANT: Reuber, T. Lynne  
APPLICANT: Keddle, James  
APPLICANT: Broun, Pierre E  
APPLICANT: Pilgrim, Marsha L  
APPLICANT: Dubell III, Arnold T  
APPLICANT: Pineda, Omaira  
APPLICANT: Yu, Guo-Liang

TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS

FILE REFERENCE: MBI-0047 CIP

CURRENT APPLICATION NUMBER: US/10/374,780A

PRIOR FILING DATE: 2003-02-25

PRIOR APPLICATION NUMBER: 09/837,944

PRIOR FILING DATE: 2001-04-18

PRIOR APPLICATION NUMBER: 60/310,847

PRIOR FILING DATE: 2001-08-09

PRIOR APPLICATION NUMBER: 09/934,455

PRIOR FILING DATE: 2001-08-22

PRIOR APPLICATION NUMBER: 60/336,049

PRIOR FILING DATE: 2001-11-19

PRIOR APPLICATION NUMBER: 60/338,692

PRIOR FILING DATE: 2001-12-11

PRIOR APPLICATION NUMBER: 10/171,468

PRIOR FILING DATE: 2002-06-14

PRIOR APPLICATION NUMBER: 10/225,066

PRIOR FILING DATE: 2002-08-09

PRIOR APPLICATION NUMBER: 10/225,067

PRIOR FILING DATE: 2002-08-09

PRIOR APPLICATION NUMBER: 10/225,068

PRIOR FILING DATE: 2002-08-09

NUMBER OF SEQ ID NOS: 2906

SOFTWARE: PatentIn version 3.2

SEQ ID NO 595

LENGTH: 633

TYPE: DNA

ORGANISM: Oryza sativa

FEATURE:

OTHER INFORMATION: Predicted polypeptide sequence is orthologous to G278

US-10-374-780A-595

Query Match 29.3%; Score 598.6; DB 16; Length 633;  
Best Local Similarity 98.4%; Pred. No. 4.3e-111;  
Matches 615; Conservative 0; Mismatches 9; Indels 1; Gaps 1;

QY 822 ACACAGAGCCCTTGAATCTGACATGTAAGCTAGTACAGATGCTGCTCACTGAAGACA 881  
DB 9 ACACAGAGCCCTTGAATCTGACATGTAAGCTAGTACAGATGCTGCTCACTGAAGACA 68

QY 882 GACAAATCTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 941  
DB 69 GACAAATCTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 128

QY 942 TACAACGAGCTTTTGGATCTGCACTTGCAGATGTTAATCAATAGAAACCAAGAGGTTA 1001  
DB 129 TACAACGAGCTTTTGGATCTGCACTTGCAGATGTTAATCAATAGAAACCAAGAGGTTA 1061  
QY 1002 TACTGTTCTTCAATGCTGTCGAGGAGGAGAGAGGCTTAATCAATGTTCTCTCTTTAAC 1061





```

RESULT 8
US-10-328-675A-1
/ Sequence 1, Application US/10328675A
/ Publication NO. US20030159171A1
/ GENERAL INFORMATION:
/ APPLICANT: Salmeron, John
/ APPLICANT: Weisslo, Laura
/ APPLICANT: Willits, Michael
/ TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
/ FILE REFERENCE: 308527USNP/IV1
/ CURRENT APPLICATION NUMBER: US/10/328, 675A
/ CURRENT FILING DATE: 2002-12-23
/ PRIOR APPLICATION NUMBER: 09/519, 232
/ PRIOR FILING DATE: 2000-03-06
/ PRIOR APPLICATION NUMBER: 60/219, 338
/ PRIOR FILING DATE: 1999-03-09
/ NUMBER OF SEQ ID NOS: 74
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 1
/ LENGTH: 1767
/ TYPE: DNA
/ ORGANISM: Nicotiana tabacum
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: (1)..(1764)
/ OTHER INFORMATION: Full length tobacco cDNA sequence
US-10-328-675A-1

```

Query Match	27.6%	Score 563.4	DB 15	Length 1767
Best Local Similarity	64.3%	Pred. No. 1.2e-122		
Matches 884	Conservative 0	Mismatches 476	Indels 15	Gaps 2
Qy	356	AGGAGGGAAGTGCAGGTACGAGGCGCTGGCGTGGTCTCACTACCTACAGCGCC	415	
Db	341	AAGAGCATGAGTGAGACTATGATGCTGTAATAGTGTATATGCTTATTTGTATAGTGA	400	
Qy	416	CGCTCGGCACCTGCCCAAGCGCGCTGCCTGCAGCAGAGACATCGGCCACCTGCG	475	
Db	401	AAGTTAGGCGCTTACCTAAAGATGTGTGTTTGTGTGACATATACGTCTCATATGG	460	
Qy	476	GGTGCACCCCGCGCGCTTCAATGGCGCAGGTCTCTTGCAGCGCTTCACCTTCAGG	535	
Db	461	CTTTTAGGCACTGTGGCATTCCTCGTGTAGGTTTGTACATCATTTACCTTTAGA	520	
Qy	536	TGCCGAGCTCAACAACTCTTCAGCGCGCTCTTCGATGTCTTGAATAGTTGAAG	595	
Db	521	TCTCGAATTTGGTTGACAAAGTTTGAGACACTTACGAAATATCTTGACAAAATCTGAG	580	
Qy	596	TAGATAACCTTCTATTAATCTTTATCTGTGGCACTTATGCACAAATCTTGACATGAAC	655	
Db	581	CNAGCAGATGATATATAGTTTATCTGTGGCAACATTTGTGTGAAGCATGGCAGAGAT	640	
Qy	656	TGCTTGAAGAATGGCTTGATATGTGTAATCCGGCTCAACCTTGACATGATTACTCTTGAGA	715	
Db	641	TGCTTTCAGAGTCGATTGAGATTTTGTCAAGCTTAATGTTGATATCATTAACCTTGATA	700	
Qy	716	AGTCAATTCCTCCAGATGTTATCAAGCAGATTTATGACAGCCCTAACGCTTCGATTTA	775	

Db 101 AAGCTTGCTCATGACATTTGTAACAAATTACTGATTCCAGAGCGGAACCTTGCTAC 760  
 QY 776 TTTCACCGAAGAAACAAGGAGATTTCCTTAACAAACATGTGAGAGAGATACACAGAGCCCTTG 835  
 Db 761 AAGGGCTCTGAAGCAACGGCTTTTCTGTATTAACATGTTAAGAGGATACATAGGGCAATTGG 820  
 QY 836 ACTCTACGATGTGAAGCTTAGTCAGAGATGCTCTCACTGAGAGACAGACAAATCTTGATG 895  
 Db 821 ATTCTATATATGTGAATTAATTAACAAATGTTGTCTAAGAGGGGCATCTACCTTGATG 880  
 QY 896 ATGCGTTTGCACTGCACTACGCCGCCGCAACATTTGTGACTCCAAATTAACAACCGACTTT 955  
 Db 881 ATGCATATGCTCTCATTAATGCTGTACGTAATGTGCATGCAAGACCTACAGCAAACTTC 940  
 QY 956 TGGATCTGCACTTGCAGAGTTAATCATGAAGAACCAAGAGGTTATATGTTCTTTAC 1015  
 Db 941 TAGATCTTGCACTTGATGATTAATATCATCAAAATTCAGGGGATACACGGTGCTGACATG 1000  
 QY 1016 TTGCTGCGAAGCGAAGAGACCTTAATAATCATTTGTCTCCCTTTTAAACAAAGGGGCTCGAC 1075  
 Db 1001 TTGACGCCATAGGAAGAAAGCCCTPAAATGTTGATGTCCTTTTAAACAAAGAGCTGAC 1060  
 QY 1076 CAGCAGATGTTCAATTCGATGAGAGAAAGCCGTTCAATCTCAAAAGACTTAACAAC 1135  
 Db 1061 CTTCTGATCTGACATCCGATGGAAGAAAGCACTTCAATGCCCAGAGGCTCACTGAGC 1120  
 QY 1136 AAGGGATTACTTTGGGGTTACCGAAGAGAAAACCTTCTCAAAAGATAGTTATGTA 1195  
 Db 1121 TTGCGATTTCAAGTAAGTCTCCGAGAGAAAGAAATCTGTTCAATGATCGGTTATGCA 1180  
 QY 1196 TTGAATATCTGAGCAAGCTGAAGAAAGAGGCCAACATCTGGAGAGCATCAATTTCTC 1255  
 Db 1181 TTGAGATTTCTGAGGCAAGCAGAAABAAAGACCTCTGTAGAGGAAGCTTCTGTAATCTC 1240  
 QY 1256 TTGCATTTGCAAGTGAAGCTCTACGAGAGAGGTTGCTGTATCTTGAAACCGAGTTAGCTT 1315  
 Db 1241 TTGCTATGCGACAGCGCATGATTTGGGTATGAAGCTGTATACCTTGAAATAGAGTTGGCC 1300  
 QY 1316 TGGCAGAGATTAATGTTTCCGATGGAAGCAGAGTAGATGATATTTGCTCAAGTGATG 1375  
 Db 1301 TGGCTAAACTCCTTTTTCCAATGGAAGCTTAAGTTGCAATGCAATGCTCAAGTTGATG 1360  
 QY 1376 GAACTTTGAATTTAACCTGGGTTCTGTGCAATCAATCACTCCCTGAAGACAAACCGACAA 1435  
 Db 1361 GCACTTCTGAAGTCCCACTGGCTAGCATGTGGCAAAAGATGCTAATGCAACAGAGACAA 1420  
 QY 1436 CTGTTGATCTAAATGAAGTCTTTCAATATGAAGAGAACACTTAGCTGAGTAGCAG 1495  
 Db 1421 CAGTAGATTTGAACGAGGCTCTCTTCAAAATTAAGAGAGACACTTGAATCGGCTTAGAG 1480  
 QY 1496 CACTCTCAAAAACGTGAGCTCGGAAAACGCTTTTCCCGGAGTTCGAAGCTGCTCG 1555  
 Db 1481 CACTCTCAAAACGTGAGACTTGAAAACGCTTTCTTTCACAGTTGTTCAGAAATTTCTAA 1540  
 QY 1556 ACAAGATCAAGATGATGA-----AATGATCGGGTTTCCCTCGAAGAGACACGTCGG 1609  
 Db 1541 ATTAAGATCATGATGCTGATGACTGTCTGAGATAGCTTATCATGGGGAATGATACGGCAG 1600  
 QY 1610 CGGA-----GAAGAGAGAGAGTTTCAATGACCTGCAAGATGTTCTTCAAGGCAT 1660  
 Db 1601 AAGAGCGTCACTGAAGAGAGCAAAAGCTTACATGAACTTCAAGAAATCTGACTTAAGCAT 1660  
 QY 1661 TTCACAGAGCAAGAGAGAAATGACAGGTGGGGCTCTCGTGGTGGTGTATC 1715  
 Db 1661 TCACGTAGATTAAGAAATATATGATGAATACCAATCTCTCATCTTGTTC 1715

RESULT 9  
US-08-908-884-13  
; Sequence 13, Application US/08908884  
; Publication No. US20020138872A1  
; GENERAL INFORMATION:  
; APPLICANT: Dong et al.

TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF  
NUMBER OF SEQUENCES: 28  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Clark & Elbing LLP  
STREET: 176 Federal Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02110  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/908,884  
FILING DATE:  
CLASSIFICATION: 800  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 60/023,851  
FILING DATE: August 9, 1996  
APPLICATION NUMBER: 60/035,166  
FILING DATE: January 10, 1997  
APPLICATION NUMBER: 60/046,769  
FILING DATE: May 16, 1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Elbing, Karen L.  
REGISTRATION NUMBER: 35,238  
REFERENCE/DOCKET NUMBER: 00786/339004  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 617-428-0200  
TELEFAX: 617-428-7045  
INFORMATION FOR SEQ. ID NO: 13:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2172 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
US-08-908-884-13

Query Match 27.6%; Score 563.4; DB 8; Length 2172;  
Best Local Similarity 64.3%; Pred. No. 1.3e-122;  
Matches 884; Conservative 0; Mismatches 476; Indels 15; Gaps 2;

356 AGAGGTGAGGTGCGGTGACGAGCGCTGCGGTGCTGCTCACTACCTCTACAGCGCC 415  
580 AAGAGATAGAGTGACCTATGATGCTGTATGATGATGCTTATTTGTATATAGTGA 639  
416 GCGTCGCGACCTGCGCAAGCGCGGCTGCGCTGCGTCAAGAGACTGCGCCACGTG 475  
640 AAGTTAGGCTTCACTTAAGATGTGTGTGTGTGTGAGCAATGACTGCTCTCATGTG 699  
476 GGTGCAACCCCGCGTGCCTGTCATGCGGAGGTCTCTTCCGCGCTCCACCTTCAG 535  
700 CTTGTAGGCGAGCTGTGGCATTCCTGTTGAGGTTTGTACACATCATTTACCTTCA 759  
536 TGGCCAGCTCACCACTCTTCCAGCGGCTCTCTTGTATGCTTTGATTAAGTTGAAG 595  
760 TCTCTGAATGTGTGCAAGTTTCAAGACACCTACTGATATCTTTCGCAAAACGCG 819  
596 TGAATACTTATGATCTTATCTTGTGCGCACTTATGCAACAACTGTCATGATAAG 655  
820 CAGACATGATGATGATGTTTATCTGTTGCAACATTTGTGTTAAGCATGCGAAGAT 879  
656 TGGTTGAAGATGCTTGTATGTATGATGCTGCGTCAAACTTGAACATGATTACTTTGA 715  
880 TGGTTCAAGCTGCTATGATATATGTCAAGTCTAATGTTGATCATCAACCTTGATA 939  
716 AGTCACTTGGCTCCAGATGTTTATCAAGCAATTTATGATGAGCCCTTAAGCCTGGA 775  
940 AAGCCTTGCTCATGACATTTGTAACAAATTAATCAATTAATCAAGCGGAACCTTGCT 999

776 TTTCACCAAGAAACAAAGGATTTCTTAACAAACATGTGAGAGATACACAGCCCTTG 835  
1000 AAGGCGCTGAAGCAACGGTTTCCGTGATTAACATGTTAAGAGATACATAGGCGCAT 1059  
836 ACTGTAGATGATGAGCTGATGAGATGCTGCTCACTGAGAGACGACAAATCTTGAT 895  
1060 ATCTGATGATGATGATGATTAATCAAAATGTTGCTAAGAGAGGCGCATCTACCT 1119  
896 ATGCGTTTCACTGACCTAGCGCGTCAACATTTGATCTCAAAATTAACACCGACCTT 955  
1120 ATGCAATGCTCTCCATTTATGCTGATGCGTATTTGCGATCAAGATCAAGCAAGAT 1179  
956 TGAATCTGCGACTTGCATGATGTTAATCATAGAAACCAAGAGTTATACTGTTCTTCA 1015  
1180 TAGATCTTCACTTGTGATGATTAATCAAAATTTCAAGGGGATACAGGTGCTCGAT 1239  
1016 TTGCTGCGAGGAGAGAGAGCCCTAAATCATTTGCTCCCTTTTAAACCAAGGGGCT 1075  
1240 TTGCAAGCCATGAGAAAGAGCCCTAAATTTGATGTCCTTTTAAACCAAGAGCTAG 1299  
1076 CAGCAGATGTTACATTCGATGAGGAGAAAGCGGTTCAATTCAAAAAGACTAACAAAC 1135  
1300 CTTGTGATCTGACATCCGATGAGAAAGAAAGCACTTCAATCCGCAAGAGCTCATAG 1359  
1136 AAGGGAATTAATCTTGGGTTACCGAAGAAAGAAACCTTCTCCAAAGATAGTTATG 1195  
1360 TTGTGATTTCAATGATCTCCGAGAGAGAAATCTGCTTCAATGATCGGTTATGCA 1419  
1196 TTGAATTAATGAGCAAGCTGAAGAAAGAGAGACCCACACTCGGAGAGATCATGTT 1255  
1420 TTGAGATTTGAGCAAGCAAGCAAGAAAGAGACCTCTGCTAGAGAAAGCTTCTGAT 1479  
1256 TTGCAATGCGAGTGAAGTCTACGAGAGAGAGTGTGCTGATCTTGAACCAAGTTG 1315  
1480 TTGCTATGCGAGCGCATGATTTGCGATGAAGCTGTTATACCTTGAATTAAGATT 1539  
1316 TGGCAAGATTAATGTTTCGATGAGAGCAAGAGTACCAATGATATTTGCTCAAGT 1375  
1540 TGGCTAAATCTCTTTTCCATGGAAGTAAAGTTCAATGACATTTGCTCAAGTTGAT 1599  
1376 GAACTTTGGAATTTAACTCGGTTCTGCTGCAATTCACCTCTGTAAGAACACGAC 1435  
1600 GCACTTCTAGATCCCACTGCGCTGAGCATGCGCAAAAGATGCTAATGACAGAGCA 1659  
1436 CTTGATCTAAATGAAAGTCTCTTCAATGAAAGAAACCTTAGCTCGATGACAG 1495  
1660 CAGTGAATTTGAACGAGCTCTTTTCAAGATTAAGAGAGACCTTGAATCGCTTAG 1719  
1496 CACTTCCAAAACAGTGAAGCTCGGAAACGCTTTTCCGCGATGTTGAAAGTCTCG 1555  
1720 CACTCTCTGAACCTGTAAGAACTTGGAAACGCTTCTTCCAGGTTTCAAGAGTTCT 1779  
1556 ACAAGATCATGATGATGA-----AACTGATCCGGTTTCTCGGAAAGACAGTCC 1609  
1780 ATAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1839  
1610 CGGA-----GAAGAGAAAGAGTTTCAAGCTGAGAGATGTTCTTCAAGAGGCA 1660  
1840 AAGAGCGTCACTGAAGAAAGAAAGTACATGGAACCTTCAAGAAATTTGACTTAAG 1899  
1661 TCCACAGAGCAAGAGAGAAATGACAGGTGCGGCTCTGCTGCTGCTGCTGCTGCT 1715  
1900 TCACAGAGATTAAGAAAGAAATGATGATTAAGATTAAGATTAAGATTAAGATTA 1954

RESULT 10  
US-09-908-323-13  
Sequence 13, Application US/09908323  
Patent No. US20020073447A1  
GENERAL INFORMATION:  
APPLICANT: Dong et al.  
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF  
NUMBER OF SEQUENCES: 28

CORRESPONDENCE ADDRESS:

ADDRESSEE: Clark & Elbing LLP  
STREET: 176 Federal Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02110

COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/908.323  
FILING DATE: 17-Jul-2001  
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/908,884  
FILING DATE: <Unknown>  
APPLICATION NUMBER: 60/035,166  
FILING DATE: January 10, 1997  
APPLICATION NUMBER: 60/046,769  
FILING DATE: May 16, 1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Elbing, Karen L.  
REGISTRATION NUMBER: 35,238  
REFERENCE/DOCKET NUMBER: 00786/339004  
TELEPHONE: 617-428-0200  
TELEFAX: 617-428-7045

INFORMATION FOR SEQ ID NO: 13:

SEQUENCE CHARACTERISTICS:  
LENGTH: 2172 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
SEQUENCE DESCRIPTION: SEQ ID NO: 13:  
US-09-908-323-13

Query Match

Best Local Similarity 64.3%; Score 563.4; DB 9; Length 2172;  
Matches 884; Conservative 0; Mismatches 476; Indels 15; Gaps 2;

356 AGAGAGTGGAGTGGGAGTGGAGGCGTGGCGGCTGCTGCACTTCAAGCGGC 415  
580 AAGAGCATGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 639  
416 GCGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 475  
640 AAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 699  
476 GGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 759  
700 CTGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 819  
536 TGGCGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 879  
820 CAGACATGTAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 939  
880 TCGTTCAAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 999  
716 AGTCAATGCTTCAAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 1059  
940 AAGCTTGGCTTCAAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAGTGGAG 1119  
776 TTTCACGAGAAACAGGATTTCTCTTCAACAAATGAGAGAGATACACAGCCCTTG 1179

1000 AAGGCTTGAAGCAAGGTTTCTGATTAACATGTTAAGAGATACATAGGCAATGG 1059  
836 ACTGAGATGTAGAGTGTAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 895  
1060 ATTCTGATGTAGT 1119  
896 ATGGGTTTGAAGT 955  
1120 ATGCAATGT 1179  
956 TGAATCTGCACTTGAAGT 1015  
1180 TAGATCTTGAAGT 1075  
1016 TTGCTGAGAGGAGAGAGGCTTAAATCATGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1239  
1240 TTGCAAGCTTGAAGAGAGGCTTAAATCATGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1299  
1076 CAGCAATGT 1359  
1300 CTTCGATGT 1419  
1136 AAGGGATTTACTTGGGTTACCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1479  
1360 TTGTGATTTAGTAAAGT 1539  
1196 TTGAATATCTGAGCAAGT 1599  
1420 TTGAGATTTCTGAGCAAGT 1659  
1256 TTGCAATGT 1719  
1480 TTGCTTGT 1779  
1316 TGGCAAGATTTAGT 1839  
1540 TGGCTAAATCTCTTTTCCAAATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1899  
1376 GAATTTGAGATTTAACTGT 1959  
1600 GCACTTGT 2019  
1436 CTGT 2079  
1660 CAGT 2139  
1496 CAGT 2199  
1720 CAGT 2259  
1556 ACAAGATGT 2319  
1780 ATAGATGT 2379  
1610 CGGA-----GAGAGAGAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2439  
1840 AAGAGCTTCAAGT 2499  
1661 TCACGAGAGCAAGAGAGAGATGACAGGTGGGGCTCTGCTGTGTGTGTGTGTGTGTGT 2559  
1900 TCACGAGAGTAAAGAGAGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 2619

RESULT 11

US-10-328-675A-63  
Sequence 63, Application US/10328675A  
Publication No. US20030159171A1  
GENERAL INFORMATION:  
APPLICANT: Salmeron, John  
APPLICANT: Weisio, Laura  
APPLICANT: Willits, Michael  
TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF

```
/ FILE REFERENCE: 30857USNPDI.V1
/ CURRENT APPLICATION NUMBER: US/10/328,675A
/ CURRENT FILING DATE: 2002-12-23
/ PRIOR APPLICATION NUMBER: 09/519,232
/ PRIOR FILING DATE: 2000-03-06
/ PRIOR APPLICATION NUMBER: 60/219,338
/ PRIOR FILING DATE: 1999-03-09
/ NUMBER OF SEQ ID NOS: 74
/ SOFTWARE: Patentin Ver. 2.1
/ SEQ ID NO: 63
/ LENGTH: 2296
/ TYPE: DNA
/ ORGANISM: Beta vulgaris
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: (113)..(1927)
/ OTHER INFORMATION: full-length Sugarbeet cDNA sequence
US-10-328-675A-63
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Query Match          27.5%; Score 562; DB 15; Length 2296;
Best Local Similarity 61.2%; Pred. No. 2,8e-122;
Matches 1014; Conservative 0; Mismatches 605; Indels 39; Gaps 5;
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QY      86  CCGACGTGAGGCGCTCCGCGCGCTCTCCGACAACTCCGCGCGGCGTTCCGCTCCGCCG 145
      |||||
DB      261  CCGACGCCCGCGCTCTCTCCGCGCTCTCGAAAACCTCGACTCTTTCGAACCTCCGCG 320
QY      146  AGGACTTGGCGTTCCCTGGCGAGCGCGGATGCGCGTCCCGGCGGCGGCGCGCGG 205
      |||||
DB      321  TTCTCTCTCCGACTCCGACTCTTTCGCGAGCGCTAAATGTCGTTCGCGGATTCCG 380
QY      206  GCGACCTGCGGAGTGCACCGCTGCTCTCCGCGGAGCGCCCTTCTGCGCGCGCTG 265
      |||||
DB      381  GTAAGTCCCGGTTTCACTCGGTGTTCTCTGCTGCTGAGCTGTTCTTTCCGCTCGCT 440
QY      266  TCGCGCGCGCGCGCGCGCGCGCGAGCGCGCGCGCGAGATGCGAGCGAGAGCTGG 325
      |||||
DB      441  TTGCTT-----CGAAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGTG 490
QY      326  AGCTCCGCGGAGCTCTCGCGCGCGCGCGGAGAGAGTGAAGTCCGCGGTACGAGCGCTG 385
      |||||
DB      491  AAGCTTGA-----CTTAAAGATTAGTGTGATTTTGAAGTTTGAATTTGATTCGCTG 545
QY      386  GCGTGGTGTCTGACTACTCTACAGCGCGCGCTCGCGAGCTGCCCAAGCGCGCTGCG 445
      |||||
DB      546  TTGCGGTTTAAAGTTATTGTATAGTGGCAAGTTAGAAATTTGCCCTAAGAGAAATTTG 605
QY      446  TCTGCTGCAAGAGACTGCGCGCGCGAGTGGCGGAGCCCGCGCTCGCGTTGAGGCGC 505
      |||||
DB      606  TTGTGTATGATGAGATGCTCTCATGAAGCTGTGCTGCTGTGTGAATTTGTGTTG 665
QY      506  AGGTCTCTTCGCGCGCTCCACTTTCAGAGTGGCGAGCTCAACCACTCTTCCAGCGCG 565
      |||||
DB      666  AGGTCTCTTAATTTGTCTCAACAAATTCGAATTTGTCAATTTGTTTGTTCATCAAGGC 725
QY      566  GTCTCTTGTATGCTCTTGAATGAAGTGAAGTAACTTATGATCTTATCTGTTG 625
      |||||
DB      726  ACTTACTGATATTTCTTGACAGATTTGACCAAGATACGTTCTAGTAGTGTATCTGTG 785
QY      626  CCAACTTATGCAACAAATCTTGCAATAAATGCTTTGAAAGATCCCTTGAATAGTAGTCC 685
      |||||
DB      786  CTGAGATGTGTGAAATGCGTGTGACGAGATGCTGCGCAAGGTGTATGACCAAGATTGTG 845
QY      686  GGTCAAACTTGAATGATTAATCTTGAAGATGATTCCTCCAGATGTTATCAACAGA 745
      |||||
DB      846  GGTCCGATATTTGCGTAACCACTTGAATTAATCTTCCGCGCAAGATTTGTGAAACAA 905
QY      746  TTATGATGCAACCTTAAGCTCGGATTAATTTCAACAGAAACAAAGAGATTTCTTAAC 805
      |||||
DB      906  TAATGACACGCAAGAAAGAACTTGGTTTACTAACTGGGCGCTGTGAGTTTCTCGATA 965
QY      806  AACATGTGAGAGATACACAGAGCCCTTGAATCTGAAGATGTAAGCTAGTCAGAGATGC 865
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DB      966  AGCATGTGAAGAAATACACAGAGCTTTGGAAATCCGATATGTAGATTAGTCAGAAATGC 1025
QY      866  TGTCTACGTGAAGACAGACAAATCTTGATGATGCTTTTGCACCTGACCTACGCGGTGAAC 925
      |||||
DB      1026  TTTTAAAGAGGCCATTAACCTTAGATGATGATATGCTCCCTTCACTATGCTGTGGCAC 1085
QY      926  ATTGTGACTCCAAATTTACACCGAGCTTTGGATTCGCCACTTGGCATGTTATATCAT 985
      |||||
DB      1086  ATTTGATGTCCAAGACCAACAGGAGCTTTGAGCTTGGGCTTGGCAGATGTTAACTTTA 1145
QY      986  GAAACCCAAAGAGTTATTAATGTTCTTCAATTTGCTGCGAGGCGGAAGAGCCCTAAATCA 1045
      |||||
DB      1146  GAAATCTAAGGGGTCACTGTGCTACATGTGCAACCTGAGAAAGACCTTAAGATTA 1205
QY      1046  TTGTCTCCCTTTTAAACCAAGGGGCTCGACGACAGATGTTACATTTGATGGAGAAAG 1105
      |||||
DB      1206  TTGTATCTCTTTTAAACCAAGGGAGCCCATCCGCTGATTAATCATGATGATTAABAAAAG 1265
QY      1106  CGGTTCAAAATCTCAAAAGACTTAACAAACAAAGGGATTACTTTGGGCTTACCAGAAAG 1165
      |||||
DB      1266  CACTGAGATGACCAAAAGAGACTTAACAAAGCTGTGGACTTCTAATAAACTACAGAAACAG 1325
QY      1166  GAAACCTTCTCAAAAGATAGTTATGTAATGAAATACTGAGCAAGCTGAAGAAAGAG 1225
      |||||
DB      1326  GAAAGATGACCAAGAGATCGGTTGTGCAATGAATATCTGAGCAAGCTGAAGAAAGAG 1385
QY      1226  ACCCAAACTCGAGAGAGATGATGATTTCTTTCGAATGCGAGTGAAGATTAACGAGAA 1285
      |||||
DB      1386  AACCATTTGTAAGAGAGATTTCTGTTTCTCTTGCAGAAAGCAGAGATGATCTGCGATGA 1445
QY      1286  GGTGCTGATCTTGAACCAAGTTGCTTGGCAAGATTAATGTTTCCGATGAGAGCAA 1345
      |||||
DB      1446  AGCTATTATATCTTGAATAAGATGACCTTGCTGCTGCTGCTTCCAAATGGAAGCA 1505
QY      1346  GAGTAGCAATGATATTTGCTCAAGTGAAGTGAACCTTGAATTTAACCTGGGTTCTGGTG 1405
      |||||
DB      1506  AAGTGTATGATGATTTGCTCAAGTGAAGCACTTCAATTTACATTTG----- 1556
QY      1406  CAAATCCACTCTGAAAGACAAAGCAACTGTTGATCTAAATGAATGCTCTTTCATTA 1465
      |||||
DB      1557  CAAAGAAATATAGTATGACAGAGAAATGCGGTGACTTGAATGAGGCTCCCTTTATAT 1616
QY      1466  TGAAGAAAGACACTTGAATGCTGAGTGAACAGACTTCCAAACAGTGAAGCTCGGAAAC 1525
      |||||
DB      1617  TGAAGAGAGAGATTTGCAAGAGATGAAGACCTGTAAACTGTTGAGCTTGGCGAACG 1676
QY      1526  GCTTTTCCCGGAGATTTGAACGCTGCTGACAAAGATCATG-----GATATGAACATG 1579
      |||||
DB      1677  GTTTCCTTCCAGCGCTGCTCGATGTTCTTAATTAAGATTAGACGCGCGAAGATCTATCAC 1736
QY      1580  ATCCGCTTCCCTCGGAAGAGACAGTCCGCGA-----GAGAGGAAGAGGTTTC 1630
      |||||
DB      1737  AGCTTGCAATTTTGAAGAAAGATCTCCAGAGAGACGCAAGAGAGAGAAACGATACC 1796
QY      1631  ATGACTCGAGAGATGTTCTTCAAGAAAGCAATTCACAGAGACAAAGAGAGAAATGACAGGT 1690
      |||||
DB      1797  TTGAATGCAAGACGTTTAACTTAAGGCTTTTAAAGAGACAAAGAAAGGTTTGAACGTT 1856
QY      1691  CGGGGCTCTGCTGCTGCTGCTGATGACATGCAATCGATCGGG 1728
      |||||
DB      1857  CTACATTAATCATCATCTGCTGCTGCTGCACTCAATGGGG 1894
```

```
RESULT 12
US-10-437-963-51264
/ Sequence 51264, Application US/10437963
/ Publication No. US20040123343A1
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa, Thomas J.
/ APPLICANT: Kovalic, David K.
/ APPLICANT: Zhou, Yihua
/ APPLICANT: Cao, Yongwei
/ APPLICANT: Wu, Wei
```

APPLICANT: Boukharov, Andrey A.  
APPLICANT: Barbazuk, Brad  
APPLICANT: Li, Ping  
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With  
FILE REFERENCE: Plants and Uses thereof for Plant Improvement  
CURRENT APPLICATION NUMBER: US/10/437,963  
NUMBER OF SEQ ID NOS: 204966  
SEQ ID NO 51264  
LENGTH: 461  
TYPE: DNA  
ORGANISM: Oryza sativa  
FEATURE:  
OTHER INFORMATION: Clone ID: PAT\_MRT4530\_53673C.1  
US-10-437-963-51264

Query Match 21.9%; Score 447.2; DB 17; Length 461;  
Best Local Similarity 98.3%; Pred.No.2.1e-95;  
Matches 452; Conservative 0; Mismatches 8; Indels 0; Gaps 0;  
QY 986 GAAACCCAGAGGTTACTGTTCTTCAATGCTGCGAGCGAAGAGCCTAAATCA 1045  
DB 2 GTATCCCAAGAGGTTACTGTTCTTCAATGCTGCGAGCGAAGAGCCTAAATCA 61  
QY 1046 TTGTCTCCCTTTAAACCAAGGGGCTCGACGACGATGTTACATTCGATGGAGAAAG 121  
DB 62 TTGTCTCCCTTTAAACCAAGGGGCTCGACGACGATGTTACATTCGATGGAGAAAG 121  
QY 1106 CGGTTCAATCTCAAAAAGACTTAACAAACAGGGGATTTACTGGGGTTACCGAAGAG 1165  
DB 122 CGGTTCAATCTCAAAAAGACTTAACAAACAGGGGATTTACTGGGGTTACCGAAGAG 181  
QY 1166 GAAACCTTCTCAAAAAGAGTATGTAATTTGAATTCGAGCAAGCTGAAAGAGG 1225  
DB 182 GAAACCTTCTCAAAAAGAGTATGTAATTTGAATTCGAGCAAGCTGAAAGAGG 241  
QY 1226 ACCCACTCGAGAGCATCACTTCTTTCGATGAGGAGAGTCTGAGAGAA 1285  
DB 242 ACCCACTCGAGAGCATCACTTCTTTCGATGAGGAGAGTCTGAGAGAA 301  
QY 1286 GGTGCTGTATCTTGAAGAACGAGTTCCTTGGCAAGATTAATGTTCCGATGAGAGCA 1345  
DB 302 GGTGCTGTATCTTGAAGAACGAGTTCCTTGGCAAGATTAATGTTCCGATGAGAGCA 361  
QY 1366 GAGTAGCAATGATATGCTCAAGTGAAGAACTTTGAATTAACCTGGGTTCTGGTG 1405  
DB 362 GAGTAGCAATGATATGCTCAAGTGAAGAACTTTGAATTAACCTGGGTTCTGGTG 421  
QY 1406 CAAATCCACCTCCGAAAGCAAGCAAGCACTGTGATCT 1445  
DB 422 CAAATCCACCTCTTGAAGCAAGCAAGCACTGTGATCT 461

RESULT 13  
US-10-767-701-21927  
Sequence 2, Application US/10767701  
Publication No. US20040172684A1  
GENERAL INFORMATION:  
APPLICANT: Kovalic, David K.  
APPLICANT: Zhou, Yihua  
APPLICANT: Cao, Yongwei  
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With  
FILE REFERENCE: Plants and Uses thereof for Plant Improvement  
CURRENT APPLICATION NUMBER: US/10/767,701  
NUMBER OF SEQ ID NOS: 2004-01-29  
SEQ ID NO 21927  
LENGTH: 614  
TYPE: DNA  
ORGANISM: Sorghum bicolor  
FEATURE:

OTHER INFORMATION: Clone ID: 13392562  
US-10-767-701-21927

Query Match 21.7%; Score 442.2; DB 17; Length 614;  
Best Local Similarity 83.0%; Pred.No.3.5e-94;  
Matches 504; Conservative 0; Mismatches 103; Indels 0; Gaps 0;  
QY 712 GAGAGTCATTCCTCCAGATGTTATCAAGCATATTATGATGACAGCGCTAGCGA 771  
DB 8 GAGAGTCATTCCTCCAGATGTTATCAAGCATATTATGATGATGATGATGATGATG 67  
QY 772 TTAATTCACAGAAAACAGAGGATTTCTTAACAATGAGAGGATACAGAGCC 831  
DB 68 TTAGTTTACAGAGGACAGAGGCTTCCCTAACATCAATGTAAGAGAGTACAGAGGCG 127  
QY 832 CTGATCTGAGATGATGAGTGAAGTCTAGTCAAGATGCTGCTCACTGAGAGCAGAGAACTT 891  
DB 128 CTGATCTGAGATGATGAGTGAAGTCTAGTCAAGATGCTGCTCACTGAGAGCAGAGAACTT 187  
QY 892 GATGATGCTTTCGACTGACCTAGCCGCTCGAATCTGATGCTCAAAATTAACACCGAG 951  
DB 188 GATGATGATGATGCTTCACTATGCTGATGATGATGATGATGATGATGATGATG 247  
QY 952 CTTTGGATCTGCACTTGCAGATGTTAATCATAGAAACCAAGAGGTTACTGTTCTT 1011  
DB 248 CTTTGGATCTGCACTTGCAGATGTTAATCATAGAAACCAAGAGGTTACTGTTCTT 307  
QY 1012 CACATTCGTGAGGCGAAGAGGCTTAAATCATTTGCTCCTTTTAAACAGAGGAGCT 1071  
DB 308 CACATTCGTGATGAGAGGAACTTAAATCATTTGCTCCTTTTAAACAGAGGAGCT 367  
QY 1072 CGACCAAGATGTTATCATTCGATGAGAGAAAGCGTTCATATCTCAAAAAGACTTACA 1131  
DB 368 CGACCAAGATGTTATCATTCGATGAGAGAAAGCGTTCATATCTTCAAAAAGACTTACA 427  
QY 1132 AAACAGAGGATTTACTTGGGGTTTACCAAGAGAAACCTTCTCAAAAAGATGATTA 1191  
DB 428 AATGATGAGATTTACTTGGGGTTTACCAAGAGAAACCTTCTCAAAAAGATGATTA 487  
QY 1192 TGTATGAATCTGAGAGAGCTGAAGAGAGGAGCCCAACCTGGAGAGATCAAGTT 1251  
DB 488 TGTATGAATCTGAGAGAGCTGAAGAGAGGAGCCCAACCTGGAGAGATCAAGTT 547  
QY 1252 TCTCTGCAATGAGAGGATGAGTCTAGAGAGAGGTTCTTGAAGAAACCGAGTT 1311  
DB 548 TCTCTGCAATGAGAGAGCTTGGGCTTCTAGAGAGAGGTTCTTGAAGAAACCGAGTT 607  
QY 1312 GCTTTGG 1318  
DB 608 GCTTTAG 614

RESULT 14  
US-08-908-884-2  
Sequence 2, Application US/0890884  
Publication No. US20020138872A1  
GENERAL INFORMATION:  
APPLICANT: Dong et al.  
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF  
NUMBER OF SEQUENCES: 28  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Clark & Elbing LLP  
STREET: 176 Federal Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02110  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FASTSEQ for Windows Version 2.0  
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/908,884  
FILING DATE:  
CLASSIFICATION: 800  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 60/023,851  
FILING DATE: August 9, 1996  
APPLICATION NUMBER: 60/035,166  
FILING DATE: January 10, 1997  
APPLICATION NUMBER: 60/046,769  
FILING DATE: May 16, 1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Elbing, Karen L.  
REGISTRATION NUMBER: 35,238  
REFERENCE/DOCKET NUMBER: 00786/339004  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 617-428-0200  
TELEFAX: 617-428-7045  
INFORMATION FOR SEQ. ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 2104 base pairs  
TYPE: nucleic acid  
STRANDEDNESS: double  
TOPOLOGY: linear  
MOLECULE TYPE: cDNA  
FEATURE:  
NAME/KEY: Coding Sequence  
LOCATION: 93...1871  
OTHER INFORMATION:  
US-08-908-884-2

Query Match 20.7%; Score 422.2; DB 8; Length 2104;  
Best Local Similarity 58.4%; Pred. No. 2,7e-89;  
Matches 824; Conservative 0; Mismatches 556; Indels 30; Gaps 4;

353 GCGGAGAGAGTGAAGTCCGGTACGAGGCGCTCCGCTGCTGCTCACTACCTTCACAC 411  
444 GCCAAGGATTAAGAAATCGGTTTCGATTCGTTGACGTTTGGCTTATGTTACACG 503  
412 GCGCGGCTGCGGACCTGCGCAAGCGGCGTGCCTCTGCGTCGACGAGAGCTGCGCCAC 471  
504 AGCAGAGTACAGCCCGCTTAAGAGATTTCTGAATGCGCAGACGAAATTCCTCCAC 563  
472 GTGCGGTGCGACCCCGCGCTGCGTTTCATGCGCGCAGTCTCTCGCCGCTTCACCTTC 531  
564 GTGGCTGCGCGCGCGGATTCATGTTGAGAGTTCTGATTTGGCTTCATCTTC 623  
532 CAGGTGCGGAGCTCAACAACCTCTTCACGCGCGCTCTCTTGATGTCCTGATAAGTT 591  
624 AAGATCCCTGAATTAATCTCTATCTATCAAGGCACTTAATGGACGTTGTAGCAAAATT 683  
592 GAAGTAGATAAATCTTATGATCTATCTGTTGCCAATTATGCAAAATCTTGCAAG 651  
684 GTTATAGAGACACATTGGTATCTCAAGCTTGCTTAATATATGCTGAAGCTGTATG 743  
652 AAAGCTTGAAGATGCTTGATATGATGTCGCTCAAACTTGACATGATTAATCTTT 711  
744 AAGCTATGATAGATGATGAAGATTAATGTCAACTGTAATATATGTTAGTACTTT 803  
712 GAGAACTATTGCTCCAGATGTTATCAAGCAGATTAATGATGACAGCTTAAGCTTCGA 771  
804 GAAAGTCAATGCGCGAAGAGCTTTGTAAGAGATTAATGATGAGTGAAGAGCTTGT 863  
772 TTAATTTCCAGAAAACAGGAGATTCTCAAAACATGTGAGAGATACACAGGCG 831  
864 TTGAGAGTACTTAAGTAAAG-----AAACATGTCCTGATATGATCAATAGGGA 911  
832 CTGACTCTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 891  
912 CTGACTCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 971  
892 GATGATGCTTTGACATGACCTACGCGCGTGAACATTTGATGATGATGATGATGATGAT 951  
972 GATGATGCTGCTGCTCTTCAATTCGCTGTCATATTGCAATGTGAAGACCGCAACAGAT 1031

952 CTTTGGATCTCGCACTTGACAGATGTTAATCATAGAAACCAAGAGTTATCTGTTCTT 1011  
1032 CTTTAAAACTTGATCTTGCCGATGTCACCATAGAAATCCAGGAGATATCGGTGCTT 1091  
1012 CACATTCGCGAGCGAAGAGAGCTTAAATCATTTGCTCCCTTTTAAACAAAGGGGCT 1071  
1092 CATGTTGCTGCATCGGAAGAGCCAAATTAATCATCTATCTATTGAAAAAGGTGCA 1151  
1072 CGACGACAGATGTTATCATTTGATGAGAAAAAGCGTTCAATCTCAAAAAGACTTACA 1131  
1152 AGTGATCAGAGCAACTTTGGAAGTAGAACCGCACTCATATGTCGCAAAACAGCACT 1211  
1132 AAACAGGAGATTAATCTTGAGGTTACCGAAGAGAAAACTTCTCAAAAGATAGTTA 1191  
1212 ATGGCGGTTGATGATTAATTAATATCCCGAGCAATCAAGATTCCTCAAGGCGCACTA 1271  
1192 TGTATTAATAATCTGAGACAGCTGAAGAAAGAGCCCAACCTGCGAGAACATCAGTT 1251  
1272 TGTGTAAGAAATCTGAGACAGCAAAACAGAAATTCCTGAGATGTTCTCCCTCC 1331  
1252 TCTCTGCAATGCGAGTGAGAGTCTACGAGAAAGTTGCTGATCTTGAACACGAGTT 1311  
1332 TCTTTTGCAGTGGCGCGGATTAATGAAGATGACGCTGCTGATCTTGAATAATAGATT 1391  
1312 GCTTTGCAAGGATTAATGTTTCGATGAGGCAAGATGACATGATATTTCTCAAGT 1371  
1392 GCACCTTGCTCAACGCTTTTTCACACGGAAGCAAGCTGCAATGAGATTCGCCGAATG 1451  
1372 GATGAACTTTGGAATTTAAGTCT--GGTTGCTGCAATTCACCTCTGAAAGACA 1428  
1452 AAGGAAACATGATGATCTAATGATGATGATGATGATGATGATGATGATGATGATG 1511  
1429 CGGACACATGATCTAATGATGATGATGATGATGATGATGATGATGATGATGATG 1488  
1512 AGAATCTACCGGAGTGAAGATGACCTTTCAAGATCTTGAAGAGATCAAAATAGA 1571  
1489 ATGACAGCACTCTCCAAAACAGTGAAGCTCGGAAAACGTTTTTCCCGGATGTTGAA 1548  
1572 CTAAAGGCTTTCTTAAACCGTGAACCTCGGAAACGATTCCTCCCGGCTGTTGGCA 1631  
1549 GTGCTGACAGATCATG-----GATGATGAATCTGATCCGTTTCCCTCGAAGAGC 1602  
1632 GTGCTGACAGATTAATGATGATGATGATGATGATGATGATGATGATGATGATG 1691  
1603 AGTCCGCG-----GAGAAGAGAGATTTCAATGACCTGAGAGATGTTCTTCA 1653  
1692 ACTGCTGAGAAAAGCACTACAAAAGAGAAAGTACATGAATACAGAGACATTAAG 1751  
1654 AAGCATTCACAGAGACAGAGAGATGACAGGTCGCGGCTCTCGTCTGCTGCA 1713  
1752 AAGGCTTTAGTGAAGACAAATTTGGAATTAAGAAATTCCTCCCTGACAAATTCGACTT 1811  
1714 TCGACATGATCGGCGCATTTGACCAAG 1743  
1812 TCCACATGAAATCAACCGTGAAAAAGG 1841

RESULT 15  
US-09-908-323-2  
Sequence 2, Application US/0908323  
Patent No. US20020073447A1  
GENERAL INFORMATION:  
APPLICANT: Dong et al.  
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF  
NUMBER OF SEQUENCES: 28  
CORRESPONDENCE ADDRESS:  
ADDRESSER: Clark & Elbing LLP  
STREET: 176 Federal Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02110







Db 347 TSQKALQIAKLTLDVFTKSTBEKGAAPKORICIELLEBAERDPLGEASISLAMA 406  
Qy 423 GESLRRLLYLENRVALARIMFPMERAVMDIAQVDTLEFNLSGANPPERORTVDL 482  
Db 407 GIDLKMLLYENRVALCLFPMKAKYAMDIAQVDTSELPLASMKRIADAQRTTVDL 466  
Qy 483 NNSPFLMEKHEHARMTALSKTYELGKRFPPRCNSVLDKIM--DDETDPVSLGDTSAE-- 538  
Db 467 NAFPRKMEHNLNRALSRVTELGKRFPPRCSEVLKIMDADLSIAIMANDVTEBQ 526  
Qy 539 -KRKFHDLQVLOKAFHEDKEENDRSGLSSSSSSTIGAIRP 580  
Db 527 LKQRYMELOEILSKAFTEDEKPEAKTWMSSCSSTSGVDK 569

RESULT 2  
US-09-519-232-2  
; Sequence 2, Application US/09519232  
; Patent No. 6528702  
; GENERAL INFORMATION:  
; APPLICANT: Salmeron, John  
; APPLICANT: Weislo, Laura  
; APPLICANT: Willis, Michael  
; APPLICANT: Mengiste, Tesfaye  
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF  
; FILE REFERENCE: S-30857A/RTP2095  
; CURRENT APPLICATION NUMBER: US/09/519,232  
; NUMBER OF SEQ ID NOS: 74  
; SOFTWARE: Patent In Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 588  
; TYPE: PRT  
; ORGANISM: Nicotiana tabacum  
US-09-519-232-2

Query Match  
Best Local Similarity 56.7%; Score 1672.5; DB 4; Length 588;  
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;

Qy 11 AFSDSASVEE-----GDADADADVDEALRSLDNLAAAF-RSPEDFAFLAD 56  
Db 7 AFSDSNDISGSSSICIGGWTETFPETSPALETLSLKRSETLESIFASLPEEDYFAD 66  
Qy 57 ARIAVPGGGGGGLRVHRCVLSRSPFLRGVAFARAAAAGGGGDEGSELELELLGG 116  
Db 67 AKLVV---SGPCKEIPVHRCILSARSPFFKULFC-----GKKEKXSSKVELKEVM-- 113  
Qy 117 GGEVEVGYBALRVLDYLSGRVGDLPKAACTCVDEDCAHVGHAPVAFMAQVLEAFT 176  
Db 114 --KEHEVSYDAVMSVLAIVYSGKVRSPKDVCCVNDNDSHVACRPAAFLVEVLYTSFT 171  
Qy 177 FOVAELTNLFORRLVDLKVENDMLLLISVANTCNKSCMKLEKRCMDVVRNSLUMIT 236  
Db 172 FOISELVDFKORHLIDLTAKTADVMWLSVANTCGACERLSSCEIIVKSNVILIT 231  
Qy 237 LEKSLPDDVYKOITDARLSGLISPEKNGFPMKHVRIRHRLDSDVLEVMILTEGQTN 296  
Db 232 LKALPHDIDVQITDSRAELGLQGPESNGFDPKVKIRHRLDSDVLEVMILTEGHTT 291  
Qy 297 LDDAFALHVAVEHCSTKTTLELDLALADVNRNPRGYTVLHIAARRREKTIIVSLITG 356  
Db 292 LDDAVALHVAAYCAKTTAEILDALADINHQRGTYVLAHAAKKEKIVASLITG 351  
Qy 357 ARPADVTEGRKAVOISKLTGKQDYGVTVEEGSPKXDLCTEILIEOARRDPOLGEAS 416  
Db 352 ARPSDLTSDGRKALQIAKLTLDVFTKSTBEKGAAPKORICIELLEBAERDPLGEAS 411  
Qy 417 VSLMAGSLSAGRLLYLENRVALARIMFPMERAVMDIAQVDTLEFNLSGANPPERQ 476  
Db 412 VSLMAGDLEKMLLYLENRVALAKLIFPMEAKVANDIAQVDTSEFPLASIGKXMANAQ 471

Qy 477 RTTVLDNPSPIKMEHARMTALSKTYELGKRFPPRCNSVLDKIM--DDETDPVSLG 534  
Db 472 RTTVLDNAPFKIEHNLRLSRVTELGKRFPPRCNSVLDKIMDADLSIAIMAND 531  
Qy 535 TSAE---KRKFHDLQVLOKAFHEDKEENDR-SGLSSSSSTIGAIRP 582  
Db 532 TAEROLKQRYMELOEILTKAFTEDEKPEAKTWMSSCSSTSGVDK 569

RESULT 3  
US-09-519-232-64  
; Sequence 64, Application US/09519232  
; Patent No. 6528702  
; GENERAL INFORMATION:  
; APPLICANT: Salmeron, John  
; APPLICANT: Weislo, Laura  
; APPLICANT: Willis, Michael  
; APPLICANT: Mengiste, Tesfaye  
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF  
; FILE REFERENCE: S-30857A/RTP2095  
; CURRENT APPLICATION NUMBER: US/09/519,232  
; NUMBER OF SEQ ID NOS: 74  
; SOFTWARE: Patent In Ver. 2.1  
; SEQ ID NO 64  
; LENGTH: 604  
; TYPE: PRT  
; ORGANISM: Beta vulgaris  
US-09-519-232-64

Query Match  
Best Local Similarity 57.4%; Score 1629; DB 4; Length 604;  
Matches 343; Conservative 81; Mismatches 130; Indels 44; Gaps 10;

Qy 11 AFSDSAS-----VEGDADADADVDEALRSLDNLAAAF--SPED 50  
Db 15 AFSDSNDISGSSSICCAATTTTTTAENSLSFTPDAAALRLSENIDSLFOSLSLD 74  
Qy 51 FAFIADARLAVPGGGGGGLRVHRCVLSRSPFLRGVAFARAAAAGGGGDEDSER--- 107  
Db 75 SDSFADAKTV---SDDSREVAHVRCVLSRSPFRSAFAKREK---ERKEVVK 127  
Qy 108 LELRELLGGGGEVEGYBALRVLDYLSGRVGDLPKAACTCVDEDCAHVGHAPVAFM 167  
Db 128 LELKDLA---DFEYGDVAVAVGYLSGRVNLPRGICVCDDECSHACRPADV 183  
Qy 168 AOVLEAFASTFOVAELTNLFORRLVDLKVENDMLLLISVANTCNKSCMKLEKRCMDY 227  
Db 184 VEVLYSHKFEIVELVLSYORHLIDLTAKLPDDVVLVSLVEMCGNACGLLARCIDKI 243  
Qy 228 VRSNIDMTLEKSLPDDVYKOITDARLSGLISPEKNGFPMKHVRIRHRLDSDVLEVR 287  
Db 244 VRSDIDVTIKSLPQNVVYKOITDREKELEFTEGRVFPDKVKIRHRLDSDVLEVR 303  
Qy 288 MLTEGQTNLDDAVALHVAVEHCSTKTTLELDLALADVNRNPRGYTVLHIAARRREK 347  
Db 304 MLTEGHTTLDADAVALHVAHCDATTELELGLADVNLNKGHTVLAHAAKKEK 363  
Qy 348 IIVSLTKGAPADVTEGRKAVOISKLTGKQDYGVTVEEGSPKXDLCTEILIEOARR 407  
Db 364 IIVSLTKGAPHDIDISDCKALQIAKLTLDVFTKSTBEKGAAPKORICIELIEOARR 423  
Qy 408 RDPOLGASVSLMAGSLSAGRLLYLENRVALARIMFPMERAVMDIAQVDTLEFNLS 467  
Db 424 REPLLEGSVSLAKADDDIRMLLYLENRVALARILFMEAKVANDIAQVDTSEFTLSK 483  
Qy 468 GANPPERORTTVLDNPSPIKMEHARMTALSKTYELGKRFPPRCNSVLDKIM--DE 525  
Db 484 NI---ADARRNAVLDNEAFILKEHNLQRMKALSRYELGKRFPPRCSDVLMKIMADEL 540  
Qy 526 TDVSLGRTSAE---KRKFHDLQVLOKAFHEDKEENDRSGLSSSSSSTIGAIRP 580  
Db 541 SOLAFGKOTPERORRKRRLYLQDALTKAFTEDEKPEAKTWMSSCSSTPMG--RP 596

```

1      RESULT 4
2      US-08-989-478-2
3      : Sequence 2, Application US/08989478
4      : Patent No. 5986082
5      : GENERAL INFORMATION:
6      : APPLICANT: Unes, Scott
7      : APPLICANT: Hunt, Michelle
8      : APPLICANT: Hunt, Michelle
9      : APPLICANT: Steiner, Henry-York
10     : APPLICANT: Ryals, John
11     : TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
12     : TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
13     : NUMBER OF SEQUENCES: 32
14     : CORRESPONDENCE ADDRESS:
15     : ADDRESSEE: No. 5986082artis Corporation
16     : STREET: 3054 Cornwallis Road
17     : CITY: Research Triangle Park
18     : STATE: No. 5986082ch Carolina
19     : COUNTRY: USA
20     : ZIP: 27709
21     : COMPUTER READABLE FORM:
22     : MEDIUM TYPE: Floppy disk
23     : COMPUTER: IBM PC compatible
24     : OPERATING SYSTEM: PC-DOS/MS-DOS
25     : SOFTWARE: Patentin Release #1.0, Version #1.30
26     : CURRENT APPLICATION DATA:
27     : APPLICATION NUMBER: US/08/989,478
28     : FILING DATE:
29     : CLASSIFICATION:
30     : PRIOR APPLICATION DATA:
31     : APPLICATION NUMBER: US 60/033,177
32     : FILING DATE: 13-DEC-1996
33     : PRIOR APPLICATION DATA:
34     : APPLICATION NUMBER: US 60/034,379
35     : FILING DATE: 27-DEC-1996
36     : PRIOR APPLICATION DATA:
37     : APPLICATION NUMBER: US 60/034,382
38     : FILING DATE: 27-DEC-1996
39     : PRIOR APPLICATION DATA:
40     : APPLICATION NUMBER: US 60/034,730
41     : FILING DATE: 10-JAN-1997
42     : PRIOR APPLICATION DATA:
43     : APPLICATION NUMBER: US 60/035,021
44     : FILING DATE: 10-JAN-1997
45     : PRIOR APPLICATION DATA:
46     : APPLICATION NUMBER: US 60/035,022
47     : FILING DATE: 10-JAN-1997
48     : ATTORNEY/AGENT INFORMATION:
49     : NAME: Melis, J. Timothy
50     : REGISTRATION NUMBER: 38, 241
51     : REFERENCE/DOCKET NUMBER: PF/5-21214/Pl/CGC1911
52     : TELECOMMUNICATION INFORMATION:
53     : TELEPHONE: (919) 541-8587
54     : TELEFAX: (919) 541-8689
55     : INFORMATION FOR SEQ ID NO: 2:
56     : SEQUENCE CHARACTERISTICS:
57     : LENGTH: 593 amino acids
58     : TYPE: amino acid
59     : TOPOLOGY: linear
60     : MOLECULE TYPE: protein
61     : US-08-989-478-2

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Db      72  SDRREVSFHRCSVLARSBSFFKSLA--AAKEXDSNNTAAVKLELKEI-----AKDYEG 124

Qy      125  YEALRLVLDYLYSGRVGDLPRKACLCVEDDCAHYGHCPVAVMAOVLPAFASTFOVALRN 184
      125  FDSVVTVLAAYVYSSKVRPPPKGVSSCAEBNCCHVACRPVDMLEVLVLAFLFKIELLT 194

Qy      185  LFORRLDVLDRKVEVDNLLILTSVNLGNKSCMKLERCLDMDVBSNLMITLEKSLPPD 244
      185  LYQRLHLDVDVDRKVIEDTLVLITKLANIGSKACMKLLDRKEIIVSNDVMVLSLEKSLPEE 244

Qy      245  VIKQIIDARLSLGLISPNKGFPMKGVRIIRHALDSDVDELVRMLITEGOTNLDDAFALH 304
      245  LKVEIIDRKELGLEVPKVK----KHSNVHVALSDSDIELVKLTLKEHTNMLDDCALH 300

Qy      305  YAVEHCDSKITELELDLALADVHNHNPBGTYLHIAARREPKIIVSLITKGARPADVTF 364
      301  FAVAYCNVKTATDLKLADLVNHNPNRGTYLVHVAAPRKERQOLISLLEKGSASAEATL 360

Qy      365  DGRKAVOJSKRLTKOGDYFGVTEBCKSPSKDRLCIEILEQAEERDQOLGEASVSLMAGE 424
      361  EGRATLMAIAKQATMAVECCNINPEQCKHSIKGRLCVELIEQBCKREQIPRDVPPSFVAAD 420

Qy      425  SLRGRLYLENRVLARIMPMPEARVAMDAVDVGGLEBNLGSAGNPPR-----ORTTV 480
      421  ELKQTLIDLENRVALAQRLPFEQAAMIEIAMKGTCEIYVS---LEPRDLTGTRTSP 477

Qy      481  DLNESPFIAMEKEHLARMTALSKTYVELGKRFPPRCGNVLDKIMD-DETDPVSLGRDTSAEK 539
      478  GVKTIAPFRIILEEHQGRILKALSKTYVELGKRFPPRCAGVAILDQIMNCCEDLTOLACGEDDTAEK 537

Qy      540  R-----KRFHLDQVLYQKAPHEKXENDBSGSLSSSSSTS 574
      538  RLQKKQRMYETQETLKKAFFSEBNLELGNSSLTDSSTSTS 576

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	Query Match	43.2%	Score 1276;	DB 2;	Length 593;
	Best Local Similarity	47.2%;	Pred. No. 1,7e-121;		
	Matches	273;	Conservative 113;	Mismatches 165;	Indels 28; Gaps 9
Dy	5	TSHVTNAESDSDSAVSEEGDADADAVEALRLRISDNLTAAAFSPEDFAELADARIAPGG	64		
			:::::	:::::	:::::
Db	17	TSFVATNDTDSIIYVLAEQVLTGPDSVALQLLNSFEFSVPDPD--FYSDAKLVL----	71		
			:::::	:::::	:::::
Dy	65	GCGGDDLKVRHVLSARSPFLRGVFRARRAAAAAGGGDEGCSEKLIRLLLGSGGEVEVNG	124		
		:::	:	:::::	:::

RESULT 5  
 US-08-996-685-2  
 Sequence 2, Application US/08996685  
 Patent No. 6031153  
 GENERAL INFORMATION:  
 APPLICANT: Ryals, John  
 APPLICANT: Friedrich, Leslie  
 APPLICANT: Uknes, Scott  
 APPLICANT: Molina, Antonio  
 APPLICANT: Ruees, Wilhelm  
 APPLICANT: Knauf-Belter, Gertrude  
 APPLICANT: Kung, Ruth  
 APPLICANT: Keesmann, Helmut  
 APPLICANT: Oostendorp, Michael  
 TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS  
 NUMBER OF SEQUENCES: 32  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: No. 6031153artis Corporation  
 STREET: 3054 Cornwallis Road  
 CITY: Research Triangle Park  
 STATE: No. 6031153ch Carolina  
 COUNTRY: USA  
 ZIP: 27709  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: PatentIn Release #1.0, Version #1.30  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/996,685  
 FILING DATE:  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 08/761,543  
 FILING DATE: 6-DEC-1996  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/034,378  
 FILING DATE: 27-DEC-1996

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PRIOR APPLICATION DATA:
  APPLICATION NUMBER: US 60/034,379
  FILING DATE: 27-DEC-1996
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US 60/034,382
    FILING DATE: 27-DEC-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 60/034,730
      FILING DATE: 10-JAN-1997
      PRIOR APPLICATION DATA:
        APPLICATION NUMBER: US 60/035,021
        FILING DATE: 10-JAN-1997
        PRIOR APPLICATION DATA:
          APPLICATION NUMBER: US 60/035,022
          FILING DATE: 10-JAN-1997
          PRIOR APPLICATION DATA:
            APPLICATION NUMBER: US 60/035,024
            FILING DATE: 10-JAN-1997
            PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/875,015
              FILING DATE: 16-JUL-1997
              ATTORNEY/AGENT INFORMATION:
                NAME: Meigs, J. Timothy
                REGISTRATION NUMBER: 38,241
                REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
                TELEPHONE: (919) 541-8587
                TELEFAX: (919) 541-8587
                INFORMATION FOR SEQ ID NO: 2:
                  SEQUENCE CHARACTERISTICS:
                    LENGTH: 593 amino acids
                    TYPE: amino acid
                    TOPOLOGY: linear
                    MOLECULE TYPE: protein
US-08-996-685-2

Query Match
Best Local Similarity 43.2%, Score 1276; DB 3; Length 593;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNMFSDSDSASVEGDADADADVEALRLSDNLAAFRSPDFALADARLAVPGG 64
DB 17 TSFATNTDTSIYVLAAGVLTGPVSAIQLSNFSFVSFSPD--FYSDAKVLT--- 71
QY 65 GGGGDDLRVRCVLSASRPFRLGVFARRAAAAAGGGEDESERLELRELLGGGGEVEVG 124
DB 72 -SDREVSEFRVCVLSARSSFFKSALA--AAKKEKDSNNTAAVYELKEI---ADYEVG 124
QY 125 YEALRLVDLYLISGRVGDLPKAACTCVDEDCAHVGHPAVAFMAOVLPAASTFOVAELTN 184
DB 125 FDSVVTVLAIVYSSRVPRPKGVSECADENCGHVACRAVDPMLEVLVLAIFIKIPELIT 184
QY 185 LFORRLDVLDRKVENNLIIISVANLCKNSCKMLERCLDMVVRNSNMDITLESKLPED 244
DB 185 LYORHLDDVADKVIJEDTLVIILKANI CGKACMKLLDRCKEIIIVASNDVMSLEKSPDE 244
QY 245 VIKQIIDARLSGLTSPENKGFPPKQVRIIRALDSDVELVRLMLTGGQNLDDAFALH 304
DB 245 LVYELIIDRKEKLEVPKVK---KHSVNHKALDSDIELVKLLKEDHTNLDACALH 300
QY 305 YVVEHDSKITTELLDIALADVNHNRPGYTVLHIAARRRPRKIVSLITKGAAPADVTF 364
DB 301 PAVACNVKATADLLKLDLADVNHNRPGYTVLVHAAARKEPOLITLLEKGSASASEALT 360
QY 365 DGRKAVOISKRLTKQGDYFVTEBGPSPKRLCTEILEQARRDPOLGASVSLMAGE 424
DB 361 EGRFTALMAKQATMAVECNNTPEQCKISLKGRLCVELLEQEDRKEQIPRDVPSFAVAD 420
QY 425 SLRGILLYENRVALARIMPEARVAMDIADVGTLEFNLGSGANPPPR---QRTIV 480
DB 421 ELKMTLLDLENRVALARLFTPEAQAMEIAEMKGEFIVTS---LEPRRLTGTTRTSP 477
QY 481 DLANSPIMKEHLARMTALSKYTELQKRFPPCSNVLDKIND-DETDEVSIGRDTSAEK 539
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DB 478 GKVIAPFRIIEHQSRLKALSKYTELQKRFPPCSALDQIMNCEPULTQACEEDTARK 537
QY 540 R---KRFHDLQDVLQRAFHEDKEENDRSGLSSSSSSTS 574
DB 538 RLQKRYMEIQTLLKCAFSEDNLELGNSSLTSTISSTS 576

RESULT 6
US-08-880-179-3
  Sequence 3, Application US/08880179
  Patent No. 6091004
  GENERAL INFORMATION:
    APPLICANT: Ryals, John
    APPLICANT: Delaney, Terry
    APPLICANT: Friedlich, Leslie
    APPLICANT: Weymann, Kristiana
    APPLICANT: Lawton, Kay
    APPLICANT: Ellis, Daniel
    APPLICANT: James, Scott
    APPLICANT: Voss, Pieter
  TITLE OF INVENTION: GENE ENCODING A PROTEIN INVOLVED IN THE
  TITLE OF INVENTION: SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS
  NUMBER OF SEQUENCES: 17
  CORRESPONDENCE ADDRESS:
    ADDRESSEE: No. 609104artie Corporation
    STREET: 520 White Plains Road, P.O. Box 2005
    CITY: Tarrytown
    STATE: New York
    COUNTRY: USA
    ZIP: 10591
  COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
    COMPUTER: IBM PC compatible
    OPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: Patent In Release #1.0, Version #1.30
  CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/880,179
    FILING DATE:
  CLASSIFICATION: 800
  ATTORNEY/AGENT INFORMATION:
    NAME: Meigs, J. Timothy
    REGISTRATION NUMBER: 38,241
    REFERENCE/DOCKET NUMBER: CGC 1909
  TELECOMMUNICATION INFORMATION:
    TELEPHONE: (919) 541-8587
    TELEFAX: (919) 541-8587
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 593 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
      MOLECULE TYPE: protein
US-08-880-179-3

Query Match
Best Local Similarity 43.2%, Score 1276; DB 3; Length 593;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNMFSDSDSASVEGDADADADVEALRLSDNLAAFRSPDFALADARLAVPGG 64
DB 17 TSFATNTDTSIYVLAAGVLTGPVSAIQLSNFSFVSFSPD--FYSDAKVLT--- 71
QY 65 GGGGDDLRVRCVLSASRPFRLGVFARRAAAAAGGGEDESERLELRELLGGGGEVEVG 124
DB 72 -SDREVSEFRVCVLSARSSFFKSALA--AAKKEKDSNNTAAVYELKEI---ADYEVG 124
QY 125 YEALRLVDLYLISGRVGDLPKAACTCVDEDCAHVGHPAVAFMAOVLPAASTFOVAELTN 184
DB 125 FDSVVTVLAIVYSSRVPRPKGVSECADENCGHVACRAVDPMLEVLVLAIFIKIPELIT 184
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Db 72 -SDGEVSHFHCULSASSFFKALA--AAKREKDSNNAAVAKLEIKI---AKUYEVG 12
Qy 125 YEALRLVIDIYYSGRVGDLEPKAACLCVDEDCAHVGCHPAVAPMAOYLPAASTPOVAELTN 18
Db 125 FDSVVTLAYAYSSSRVPPPKGVSECADENCHVACRPADVPMLEVLATIFKIPBLIT 184
Qy 185 LFORRLDVLDPKYEVDMLLLISVALCMKSCMKLBERCLDMVVRNSIDMTLEKSLPPD 244
Db 185 LYGHLLDVPDQVIVETIYLKLANCGKACMKLDRCKEIIYKSNVDMWLSLEKSPEE 244
Qy 245 VIKOIIDARISLGLISPEKGFPPKRVIRIHRALDSDDVELYRMALTEGOTINDDAPALH 304
Db 245 LVKETIDRRKEIGELVEYPKV---KRVSHVKALDSDDIELYKLLKEDHTINDDACAHL 300
Qy 305 YAEHCDSKTTEFLDLALADVNNHNPBGVYVTHAARRRPKIYVLLTKGARPADVTP 364
Db 301 PAAVACNVKATADLKLADLADVNNHNPBGVYVTHAARREKPOLISLLEKGSASEALT 360
Qy 365 DGRKAVQISKRLTKOGDFVGTGECKSPSKDRLCTEILBOAERDDPOLGASVSLMAGE 424
Db 361 EGTALMIKQKQMAVECNINPEQCKHSLKGRLCVEILLEGDRKQRPDPVPSFAVAD 420
Qy 425 SJRGLLLYAENVALARIMFPEARVAMIDIAOVGTLERFLUSGANPPPER---QRTTV 480
Db 421 ELKMTLLDENVALAQRLLPTEBOAAAMEIAEMKQGEFTLVTS--LEBDRJLTGRKASP 477
Qy 481 DINESFFIMKEHRLARMTALSKTVELGRPPRCNVLDKIMD-DETDVSLGRPTSAEK 539
Db 478 GKVIAPFRLIEBHOSSRLKALSKYTELGRFFPCSAVLQIMNCBLLTQLAGEDDTYAEK 537
Qy 540 R-----KRFHDIQDYLQKAFHEKDEKENDRGSLSSSSSTS 574
Db 538 RLOKKQRYMEIQETLTKKAFSEDNLEIGANSLSTIDTSTIS 576

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RESULT 9
US-09-519-232-6
; Sequence 6, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmemon, John
; APPLICANT: Weisslo, Laura
; APPLICANT: Willits, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-3065578/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ. ID NOS.: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ. ID NO. 6
; LENGTH: 579
; TYPE: PRT
; ORGANISM: Brassica napus
US-09-519-232-6

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Query Match	41.4%;	Score 1222.5;	DB 4;	Length 579;
Best Local Similarity	45.9%;	Pred. No. 5e-116;		
Matches	260;	Conservative 110;	Mismatches 160;	Indels 37; Gaps 10;
QY	14	DSQSASVEEGDADADADYEAALRLRLSDNLAAFRSPEDFAFLARLAVPVGGGGGGDLRV	73	
Db	27	NSGSSSTVXETELXTRPEVSAFQLSNSLSGVPSPPE--AFYSDAKVL-----SDKXVSF	80	
QY	74	HRCVLSARSPFLRGVAFRRAAAAGGGGEGSGSRLLRLRLGGGEGVEVGYEALRYLVD	133	
Db	81	HHCILSARS-----LFRKALXAAEKQKSTPVKLEKTL-----AAEYDVGDFSVAAVLA	131	
QY	134	YLXSGREVDLPKAACTLVDEDCAHVGCHPAVAFMAQVLPAASTFOVAETLTMFORRLIDY	193	
Db	132	YYYSGRVRRPPRGVSEQADKXSCGVACRPAPVDFMVEVLTIAVFOIGELVTMQRHLDV	191	
QY	194	LDKRVVDNMLLILISVANLGNKSCMKLLERCCLDMVYVARSNIDMTTEKSLPPDVIKQIIDAR	253	

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Db      192 VQKVIIDTLVVLKLANIGKCKKFLDKCREIIVKSNVDVVLTKKSLPEXIAKQVYIDR 251
Qy      254 LSLGISPENKGPNGKGVRIHRAALSDVVELVRMLLTGQOTLDDAFLHYAVEHCDSK 313
Db      252 KELGLEVAE----PEKGVSNHKALESDDIDLVMKKGHTNLDIAVLAHFVAYCDEK 307
Qy      314 ITTELIDLADVNHNPRGYTLVHIAARRREPKIIVSLITKGARPAVTFDGRKAVOIS 373
Db      308 TARNILELGFADVNRNPNRGYTLVHVAARKETLLALLITKANMLKMSLDORTALLA 367
Qy      374 KKLTKGQDFGVTEBEKSPKORLCIEIEQAEER-RDPOLGEASVSLNAGESLRRLLY 432
Db      368 KQVTKAECC-IIEKSKLAKAGGVCEIIKQPNTRPEPFEDVSPSLVAADQFKIRLID 426
Qy      433 LBNRVLAIRIMPEARVMDIAQVDTLEFNLGSGANPPREKQRTTVVLNESPFIKXE 492
Db      427 LBNRVMAKCLYPMEQVAMDPFARKGTREFFV-----TTATIDLHNEPFKFEVM 475
Qy      493 HLAHMTALSKTVELGKRFPPRCSNVLDKIMDE--TDPSVSLGRDT--SAEKKRPHDQ 547
Db      476 HOSRLTALSKTVEFGKRFPPRCQKVLDDIVDSEDLTLLALVEEDTPEJQQRQRMELQ 535
Qy      548 DVLQKAFHEDKXENDRSGJLSSSSSTS 574
Db      536 EIVQMAFSKXEDLKGKSLSSSSSTS 562

RESULT 10
US-09-519-232-20
; Sequence 20, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
; LENGTH: 600
; TYPE: PRF
; ORGANISM: Arabidopsis thaliana
US-09-519-232-20

Query Match      41.1%; Score 1213.5; DB 4; Length 600;
Best Local Similarity 45.8%; Pred. No. 4.4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;

Qy      1 MEBPSSHVTNAPSDSDSASVEBGD---ADADAD-----VEALRRLSDNLAAPR 46
Db      1 MATTTTTRTARFSDSYEFNTSGNSFPFALESSLDYTBFLTPPEVGLKLLNSCLSVFD 60
Qy      47 SPEDFAFLDARIAVGGGGGDDLVRHCVLSARSPPFLRGVAFARAAAAAGGGGSDGSE 106
Db      61 SBE--TFYSDAKVL-----AGGREVSFHRCTLSARIP---VF-KSALATVKEQKSTTV 109
Qy      107 RLRLRLGGGGEVEVGEALRLVLDYLSGRVGLDLPRAACLCVDEDCAHVGCHPAVAF 166
Db      110 KIQLKFI-----ARDYEVGDSVAVALAYVSGVRSPPKGAACVDDDCCHVACRSKVPF 165
Qy      167 MAQVLPAASTFOVAELTNLFQRRLDVLKVEVDNLLLSVANLGNKSCMKLLERCLDM 226
Db      166 MVEVLVLSFVFOIQELVTLYERQFLVVKVVEDLVIFKLDTLGCTTYKKLLDRCIET 225
Qy      227 VVRNSNDMTTLEKSLPPDVYIKQIIDARLSLGLISPENKGPNGKGVRIHRAALSDVVELY 286
Db      226 IYKSDIELVLSLEKSLPQHIFKQIIDIREALCEBPPLKE---RHVGNITKALDSDDVELY 281
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Qy      287 KMLLTGQTNLDDAFALHYAVEHCDSKITTELLDLALADVNHNPRPGYTVLHIAARRRP 346
Db      282 KMLLEGHNTLDBEAVALHFAIAHCAVKTAYDLELELADVNHNPRPGYTVLHVAARKKEP 341
Qy      347 KIIIVSLITKGARPAVTFDGRKAVOISKRITKQGVFGVTEBEKSPKORLCIEIEQAE 406
Db      342 KIIISLMKGANILDTTLGRTALVYVKRLTAADYKTSTEGTSPKLGGLCEVLEH-B 400
Qy      407 RDPOLG--EASVSLAMAGESLRGLLYENRVALAIRIMPEARVAMDIQVDTLEFNL 464
Db      401 QKLEVTISPEIASLSVPTBEELRMLLYENRVALARLLFPVETEVQAKLEBTECEFT 460
Qy      465 LGGGANPPE--RQRTTVLINESPFIMKEEHLARMTALSKTVELGKRFPPRCSNVLDKIM 522
Db      461 -ASSLEPDHIGKRTSLDLMNMAPFOIHKHLISRLALCKTVELGKRFYRCS--LDHFM 517
Qy      523 DDE--TDPSVSLGRDT---SAEKKRPHDQDVLQKAFHEDKXENDRSGJLSSSSSTSIGA 577
Db      518 DTEDLNHLASVEEDPEPKRLQKQRYMELQETLMKTFSEDKBE--CGKSTTPKPTS--A 572
Qy      578 IRPRR 582
Db      573 VRSNR 577

RESULT 11
US-09-519-232-72
; Sequence 72, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72
; LENGTH: 601
; TYPE: PRF
; ORGANISM: Arabidopsis thaliana
US-09-519-232-72

Query Match      41.1%; Score 1213.5; DB 4; Length 601;
Best Local Similarity 45.8%; Pred. No. 4.4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;

Qy      1 MEBPSSHVTNAPSDSDSASVEBGD---ADADAD-----VEALRRLSDNLAAPR 46
Db      2 MATTTTTRTARFSDSYEFNTSGNSFPFALESSLDYTBFLTPPEVGLKLLNSCLSVFD 61
Qy      47 SPEDFAFLDARIAVGGGGGDDLVRHCVLSARSPPFLRGVAFARAAAAAGGGGSDGSE 106
Db      62 SBE--TFYSDAKVL-----AGGREVSFHRCTLSARIP---VF-KSALATVKEQKSTTV 110
Qy      107 RLRLRLGGGGEVEVGEALRLVLDYLSGRVGLDLPRAACLCVDEDCAHVGCHPAVAF 166
Db      111 KIQLKFI-----ARDYEVGDSVAVALAYVSGVRSPPKGAACVDDDCCHVACRSKVPF 166
Qy      167 MAQVLPAASTFOVAELTNLFQRRLDVLKVEVDNLLLSVANLGNKSCMKLLERCLDM 226
Db      167 MVEVLVLSFVFOIQELVTLYERQFLVVKVVEDLVIFKLDTLGCTTYKKLLDRCIET 226
Qy      227 VVRNSNDMTTLEKSLPPDVYIKQIIDARLSLGLISPENKGPNGKGVRIHRAALSDVVELY 286
Db      227 IYKSDIELVLSLEKSLPQHIFKQIIDIREALCEBPPLKE---RHVGNITKALDSDDVELY 282
Qy      287 KMLLTGQTNLDDAFALHYAVEHCDSKITTELLDLALADVNHNPRPGYTVLHIAARRRP 346
Db      283 KMLLEGHNTLDBEAVALHFAIAHCAVKTAYDLELELADVNHNPRPGYTVLHVAARKKEP 342
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QY 347 KIIVSLITKARPADVTFDGRKAVOISKRLLTKOGDYFGVTEBGRSPKRLCTEILEOAE 406  
 Db 343 KLIITSLMKGANIIDTLDRKTLALVTKRLTKADVTSTEDSTBPGLKGLCEVLEH-E 401  
 QY 407 RRPBQCG--BASVSLMAGSLGRLILYENVALARIMPEARVAMDIAVDGTLFEN 464  
 Db 402 QKLEYSPTIASISLPTPEELMRLIYYENVALARILFPVETETVQGIATLEETCEFT 461  
 QY 465 LSGGANPPPE--RQRTTVDLNESPFIKKEHLARMTALSKVTELGKRFPRCSNVLDKIM 522  
 Db 462 -ASLSRPHDHIGKRTSLDMNAPFOIHEKLSRLALCKTVELGKRYFKRCS--LDHFM 518  
 QY 523 DDE--IDPVSLGRDT---SAEKRPFDIQLVLOKAFHEDKEENDRSGLSSSSSSTSGA 577  
 Db 519 DIEDNLHLASVEEDTPEKRLQKORYMELOETLMKTFSEDEKE---CGKSTPKPTS--A 573  
 QY 578 IRPRR 582  
 Db 574 VRNRR 578

## RESULT 12

US-08-989-478-12  
 Sequence 12, Application US/08989478

## GENERAL INFORMATION:

APPLICANT: Uknes, Scott  
 APPLICANT: Hunt, Michelle  
 APPLICANT: Steiner, Henry-York  
 APPLICANT: Ryals, John  
 TITLE OF INVENTION: ALTERED FORMS OF THE NIMI GENE CONFERRING  
 NUMBER OF SEQUENCES: 32  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: No. 5986082artls Corporation  
 STREET: 3054 Cornwallis Road  
 CITY: Research Triangle Park  
 STATE: No. 5986082th Carolina  
 COUNTRY: USA  
 ZIP: 27709  
 COMPUTER READABLE FORM:  
 MEDIUM TYPE: Floppy disk  
 COMPUTER: IBM PC compatible  
 OPERATING SYSTEM: PC-DOS/MS-DOS  
 SOFTWARE: PatentIn Release #1.0, Version #1.30  
 CURRENT APPLICATION DATA:  
 APPLICATION NUMBER: US/08/989,478  
 FILING DATE:  
 CLASSIFICATION:  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/033,177  
 FILING DATE: 13-DEC-1996  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/034,379  
 FILING DATE: 27-DEC-1996  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/034,382  
 FILING DATE: 27-DEC-1996  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/034,730  
 FILING DATE: 10-JAN-1997  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/035,021  
 FILING DATE: 10-JAN-1997  
 PRIOR APPLICATION DATA:  
 APPLICATION NUMBER: US 60/035,022  
 FILING DATE: 10-JAN-1997  
 ATTORNEY/AGENT INFORMATION:  
 NAME: Meigs, J. Timothy  
 REGISTRATION NUMBER: 38,241  
 REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911  
 TELECOMMUNICATION INFORMATION:

TELEPHONE: (919) 541-8587  
 TELEFAX: (919) 541-8689  
 INFORMATION FOR SEQ ID NO: 12:  
 SEQUENCE CHARACTERISTICS:  
 LENGTH: 521 amino acids  
 TYPE: amino acid  
 TOPOLOGY: linear  
 US-08-989-478-12  
 MOLECULE TYPE: protein

Query Match 40.3%; Score 1188.5; DB 2; Length 521;  
 Best Local Similarity 48.0%; Pred. No. 1.3e-112;  
 Matches 251; Conservative 100; Mismatches 149; Indels 23; Gaps 7,

QY 5 TSHVTNAPSDSDSASVEEDADADADVEALRSLDNLLAAFPSPDPFALDARAVGCG 64  
 Db 17 TSFVATDNTDSSIVYLAAGVLTGPDVAGALQLSNFSFSDSPDD--FYSDAKLVTL--- 71  
 QY 65 GGGGGDLRVRHRCVLAGRSPFLRGVFPARPAAGGGGSGSERLELREILGGGEEVEVG 124  
 Db 72 -SDGRVSPFRVCVLAGRSPFLRGVFPARPAAGGGGSGSERLELREILGGGEEVEVG 124  
 QY 125 YEALRLVLDYLYSGRVGDLPRACLCVDEDCAGHCGHAAVFMAYVPAASTFOVALTN 184  
 Db 125 FDSVTVLAVYSSSRVREPPEKGVSECADENCGHACRPADVFMLEVYLAFFIKIPILIT 184  
 QY 185 LFQRLDLVDLKEVDNLLILSVANLCNKSCKMLRCLDMVVRNMLDMITTEKSLPPD 244  
 Db 185 LYQRLDLVDVVKVIEDTLVILKLANICGKACMKLDRCKEIIYKSNVDVMSLEKSLPEE 244  
 QY 245 VIKQIIDARSLGLISPPNKGFPNKHRRIRHALDSVDVLYKMLTTEGNTINDAPALH 304  
 Db 245 LVKEIIDRRELGLFVKKV---KHSNVKALDSDDILVLLKEDHTNLDDBCALH 300  
 QY 305 YAVHCHSKITTELLDLADLVNHRNPGYTVLHIAARRRPEKTIYSLITKARPADVT 364  
 Db 301 FAVAYCNVKTATDLKLADLVNHRNPGYTVLHIAARRRPEKTIYSLITKARPADVT 360  
 QY 365 DGRKAVOISKRLLTKOGDYFGVTEBGRSPKRLCTEILEOERRDPOLGEASVSLMAGE 424  
 Db 361 EGRALMLIAKQATVAECNNIPQCHSLKGRICVEILREDBREQIPRDVPPSPFAVAD 420  
 QY 425 SLRGRLLYLENVALARIMPEARVAMDIAVDGTLFENLGSANPPEP---QRTIV 480  
 Db 421 ELKMTLLDENRVALAQLRFPTEAQAAMEIAEMKGTCEFTIVS--LEPDRLTGTRKISP 477  
 QY 481 DLNESPRIKKEHLARMTALSKVTELGKRFPRCSNVLDKIND 523  
 Db 478 GVKIAPRILEHOSRLKALSKVTELGKRFPRCSNVLDKIND 520

## RESULT 13

US-08-996-685-12  
 Sequence 12, Application US/08996685

## GENERAL INFORMATION:

APPLICANT: Ryals, John  
 APPLICANT: Friedrich, Leslie  
 APPLICANT: Uknes, Scott  
 APPLICANT: Molina, Antonio  
 APPLICANT: Ruess, Wilhelm  
 APPLICANT: Knauf-Belter, Gertrude  
 APPLICANT: Kung, Ruth  
 APPLICANT: Kessmann, Helmut  
 APPLICANT: Oostendorp, Michael  
 TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS  
 NUMBER OF SEQUENCES: 32  
 CORRESPONDENCE ADDRESS:  
 ADDRESSEE: No. 6031153artls Corporation  
 STREET: 3054 Cornwallis Road  
 CITY: Research Triangle Park  
 STATE: No. 6031153th Carolina  
 COUNTRY: USA



ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/996,685  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/761,543  
FILING DATE: 6-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,378  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,022  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,024  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/875,015  
FILING DATE: 16-JUL-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: PF/5-21215/PL/CGC1912  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919) 541-8587  
TELEFAX: (919) 541-8689  
INFORMATION FOR SEQ. ID NO: 12:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 521 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-996-685-12

Query Match 40.3%; Score 1188.5; DB 3; Length 521;  
Best Local Similarity 48.0%; Pred. No. 1.3e-112;  
Matches 251; Conservative 100; Mismatches 149; Indels 23; Gaps 7;

5 TSHYNTAFSDSASVEEGDADADAVEALRLSDMLAAFFSPHFAFLADRIAPG 64  
17 TSVFATDNTDSSIVYLAQVLTGPVSALQILSNSEFSPDPI--FYSDKVL--- 71  
65 GCGGGLRVHRCVLSARSFELRGVFARRAAAAAGCGEGDSERLEIRELGGGEEVEVG 124  
72 -SDGRVSPHRCVLSARSFFKSALA--AAKKEKDSNNTAAVLEIKET----AKDYEVG 124  
125 YEALRLVLDLYSGRYGDLPKAACLCVDEDCAHVGHGHPAFAQAQVLPAASTFOVALTN 184  
125 FDSVVTVLAVVSSRVPRPKGVSECADEKCHVACRPADVFLVLYLAFFIKIPELIT 184  
185 LFOBRLLVLDKKEVENLLILISVANLCNKSCKMLERCLDMVVRNLMITTEKSLPDD 244  
185 LFOHRLVDDVADKIVLDTLILGLANI CGACMKLDRCKEITVKSNDVNSLEKSLPEE 244  
245 VIKQIDARLSGLISPNKGFENKIVRIRHRLDSDDELVYMLLTGQTNLDAFALH 304

245 LVEKIIDRRKEGLEVPKVK---KAVSNVHALSDDIETLVKLTKEHTNLDNCAH 300  
305 YAVEHCDSKITTELDLADLVNHNRPRTYVLIHARREPIIIVSLTTGARPADVTF 364  
301 FAVAYCNVKTATDLDLADLVNHNRPRTYVLIHAAKKEQILISLLEKGSASEATLV 360  
365 DGRKAVQISKRLLTQGDYPGVTEEGKPSPKRLCIEILQABRRDPQLGEASVSLMAGE 424  
361 EGRALMIKQATMAVECNRIPEQCKSLKGRLCVEILLEGEDREQIPRDVPSFAVAD 420  
425 SLRGRLYIENRYALARIPEMEARVANDIAQVDGTLFENLSSGANPPR-----ORTV 480  
421 ELKMTLLDLENRVLAQRLEPTEQAAMBIAMKGTCEPIVTS--LEBDRLTGTRTSP 477  
481 DINESPFIWKEHLARMTALSTVLEKGFPPRCSVNLKIND 523  
478 GVKIAPFRIEBHOSRLKSLKTVLEGRFFRCSVNLQIMN 520

RESULT 14  
US-08-989-478-10  
Sequence 10, Application US/08989478  
Patent No. 5986082  
GENERAL INFORMATION:  
APPLICANT: Uknes, Scott  
APPLICANT: Hunt, Michelle  
APPLICANT: Steiner, Henry-York  
APPLICANT: Ryals, John  
TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING  
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: No. 5986082artlis Corporation  
STREET: 3054 Cortwallis Road  
CITY: Research Triangle Park  
STATE: No. 5986082th Carolina  
COUNTRY: USA  
ZIP: 27709  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/989,478  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/033,177  
FILING DATE: 13-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,379  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,382  
FILING DATE: 27-DEC-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/034,730  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,021  
FILING DATE: 10-JAN-1997  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 60/035,022  
FILING DATE: 10-JAN-1997  
ATTORNEY/AGENT INFORMATION:  
NAME: Meigs, J. Timothy  
REGISTRATION NUMBER: 38,241  
REFERENCE/DOCKET NUMBER: PF/5-21214/PL/CGC1911  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (919) 541-8587  
TELEFAX: (919) 541-8689

; INFORMATION FOR SEQ ID NO: 10:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 469 amino acids  
 ; TYPE: amino acid  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: protein  
 ; US-08-989-478-10

Query Match 38.4%; Score 1134; DB 2; Length 469;  
 Best Local Similarity 51.4%; Pred. No. 4,1e-107;  
 Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

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DB 7 VLAVYSSRVPRPPKGVSECDENCCVACRPADVFMLEVLVLAIFIKIPELITLYGRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNKSCKMLERCLDMVVSNDMTLEKSLPPDVYKQII 250
DB 67 LDVVDKVIIEIDLTVILKLANICGKACMKLDRCKEITIVKSNVDMVSLKSLPEELVKEII 126
QY 251 DARLSGLISPEKNGFPKNGHRRIRHRLDSDVDVELVRLMTEGQTNLDAPALHVAVHC 310
DB 127 DRKEIGLEVPRKVK---KHVSNVHKAALDSDIDELVILKLDKDHNLDDACALHFAVAVC 182
QY 311 DSKITTELDLADVNHNPRGYTVLHIAARREPKIIVSLTKARPAVDYFGRAV 370
DB 183 NVKTAITDLKLDLADVNHNPRGYTVLHVAAMRKEPQILSLLEKGSASSEATLEGRAL 242
QY 371 QISKRLTKQGDYGVTEEGKSPKRDLCIEILEQARRDPOLGEASVSLAMAGESLGRLL 430
DB 243 MIKQATMAVECNNTPEQCKHSLKGRLLCVELLEQEDKREQIPROVPPSFAVADELKMTL 302
QY 431 LYLENRVALARIMFPEARVAMDIADVDTLEFNLGSGANPPRR---QRTTVDLNESP 486
DB 303 LDLENRVALLAQRLFFTEQAAMEIAEMKGTCEFIYTS---LEPRDLTGKRTSPGVKIAP 359
QY 487 FIMKEHARMTALSKTYELGKREFPPRCNVLDKIMD-DEDPVPSLGRDSAKRR---K 541
DB 360 FRILEEHOSRLKALSKTYELGKREFPPRCNVLDQIMNCEDLTOLACGEDDTAKERLQKKQ 419
QY 542 RFHLDQVLOKAFHEDKEENDRSLSSSSSSTS 574
DB 420 RYMEIGETLKAFSEDNLELGNLSLTDSTSTS 452
  
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# RESULT 15

US-08-996-685-10  
 ; Sequence 10, Application US/08996685  
 ; Patent No. 6031153

## GENERAL INFORMATION:

; APPLICANT: Ryals, John  
 ; APPLICANT: Friedrich, Leslie  
 ; APPLICANT: Uknes, Scott  
 ; APPLICANT: Molina, Antonio  
 ; APPLICANT: Ruess, Wilhelm  
 ; APPLICANT: Knauf-Belter, Gertrude  
 ; APPLICANT: Kung, Ruth  
 ; APPLICANT: Kessmann, Helmut  
 ; APPLICANT: Oostendorp, Michael  
 ; TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS  
 ; NUMBER OF SEQUENCES: 32  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSER: No. 6031153artis Corporation  
 ; STREET: 3054 Cornwallis Road  
 ; CITY: Research Triangle Park  
 ; STATE: No. 6031153th Carolina  
 ; COUNTRY: USA  
 ; ZIP: 27709

; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/996,685  
 ; FILING DATE:  
 ; CLASSIFICATION:  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/761,543  
 ; FILING DATE: 6-DEC-1996  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/034,378  
 ; FILING DATE: 27-DEC-1996  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/034,379  
 ; FILING DATE: 27-DEC-1996  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/034,382  
 ; FILING DATE: 27-DEC-1996  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/034,730  
 ; FILING DATE: 10-JAN-1997  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/035,021  
 ; FILING DATE: 10-JAN-1997  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/035,022  
 ; FILING DATE: 10-JAN-1997  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 60/035,024  
 ; FILING DATE: 10-JAN-1997  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/875,015  
 ; FILING DATE: 16-JUL-1997  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Weigs, J. Timothy  
 ; REGISTRATION NUMBER: 38,241  
 ; REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (919) 541-8687  
 ; TELEFAX: (919) 541-8689  
 ; INFORMATION FOR SEQ ID NO: 10:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 469 amino acids  
 ; TYPE: amino acid  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: protein  
 ; US-08-996-685-10

Query Match 38.4%; Score 1134; DB 3; Length 469;  
 Best Local Similarity 51.4%; Pred. No. 4,1e-107;  
 Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

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QY 131 VLDTYSGRVGDLPRACLCVDEDCAHVGHCPAVAFMAQVLPFASTFOVAELTNLFORRL 190
DB 7 VLAVYSSRVPRPPKGVSECDENCCVACRPADVFMLEVLVLAIFIKIPELITLYGRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNKSCKMLERCLDMVVSNDMTLEKSLPPDVYKQII 250
DB 67 LDVVDKVIIEIDLTVILKLANICGKACMKLDRCKEITIVKSNVDMVSLKSLPEELVKEII 126
QY 251 DARLSGLISPEKNGFPKNGHRRIRHRLDSDVDVELVRLMTEGQTNLDAPALHVAVHC 310
DB 127 DRKEIGLEVPRKVK---KHVSNVHKAALDSDIDELVILKLDKDHNLDDACALHFAVAVC 182
QY 311 DSKITTELDLADVNHNPRGYTVLHIAARREPKIIVSLTKARPAVDYFGRAV 370
DB 183 NVKTAITDLKLDLADVNHNPRGYTVLHVAAMRKEPQILSLLEKGSASSEATLEGRAL 242
QY 371 QISKRLTKQGDYGVTEEGKSPKRDLCIEILEQARRDPOLGEASVSLAMAGESLGRLL 430
DB 243 MIKQATMAVECNNTPEQCKHSLKGRLLCVELLEQEDKREQIPROVPPSFAVADELKMTL 302
QY 431 LYLENRVALARIMFPEARVAMDIADVDTLEFNLGSGANPPRR---QRTTVDLNESP 486
DB 303 LDLENRVALLAQRLFFTEQAAMEIAEMKGTCEFIYTS---LEPRDLTGKRTSPGVKIAP 359
  
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Qy 487 FIMKEEHLARMTALSKTVELGKRFPFRCGNVLDKIND-DETPVSLGRDTSAEKR---K 541  
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| : ||| : | : ||| ||| ||| ||| : | : ||| :  
Qy 542 RPHDLODVLOKAFHEPKENDRSGLSSSSSTS 574  
| : ||| : | : ||| ||| ||| ||| : | : ||| :  
Db 420 RYMEIQETLKKAFFSEDNLELGNLSLTDSTSTS 452  
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Job time : 48 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM protein - protein search, using bw model

Run on: January 19, 2005, 15:51:03 ; Search time 149 Seconds

(without alignments)  
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Title: US-09-294-539-4

Perfect score: 2952  
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Scoring table: BLOSUM62  
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Searched: 1608061 seqs, 361289386 residues

Total number of hits satisfying chosen parameters: 1608061

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-Processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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Published Applications AA:\*  
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20: /cgn2\_6/ptodata/1/pubppaa/US60\_PUBCOMB.pep:\*

Prod. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2934	99.4	582	10	US-09-848-841-10
2	2907.5	98.5	615	15	US-10-374-780A-597
3	2907.5	98.5	615	16	US-10-437-963-153749
4	1913	64.8	447	17	US-10-425-115-246254
5	1737	58.8	576	14	US-10-328-675A-4
6	1672.5	56.7	588	8	US-08-908-884-14
7	1672.5	56.7	588	9	US-09-908-323-14
8	1672.5	56.7	588	14	US-10-328-675A-2
9	1629	55.2	604	14	US-10-328-675A-64
10	1425.5	48.4	335	15	US-10-425-114-68962
11	1276	43.2	593	8	US-08-908-884-3
12	1276	43.2	593	9	US-09-908-323-3
13	1276	43.2	593	10	US-09-934-455-74

14	1276	43.2	593	10	US-09-848-841-17	Sequence 17, Appl
15	1276	43.2	593	13	US-10-079-035-3	Sequence 3, Appl
16	1276	43.2	593	14	US-10-225-068-242	Sequence 242, Appl
17	1276	43.2	593	14	US-10-225-068A-954	Sequence 954, Appl
18	1276	43.2	593	15	US-10-374-780A-48	Sequence 48, Appl
19	1222.5	41.4	579	14	US-10-328-675A-6	Sequence 6, Appl
20	1213.5	41.1	600	14	US-10-328-675A-20	Sequence 20, Appl
21	1213.5	41.1	601	10	US-09-934-455-434	Sequence 434, Appl
22	1213.5	41.1	601	14	US-10-328-675A-72	Sequence 72, Appl
23	1213.5	41.1	601	15	US-10-374-780A-2092	Sequence 2092, Appl
24	1213.5	41.1	601	15	US-10-412-699B-814	Sequence 814, Appl
25	1124	38.1	532	15	US-10-424-599-164227	Sequence 164227, A
26	1124	38.1	532	15	US-10-425-114-38340	Sequence 38340, A
27	1117.5	37.9	624	15	US-10-374-780A-1466	Sequence 1466, Ap
28	1117.5	37.9	624	16	US-10-437-963-122855	Sequence 122855,
29	1117.5	37.9	635	10	US-09-848-841-16	Sequence 16, Appl
30	1060.5	35.9	591	14	US-10-328-675A-66	Sequence 66, Appl
31	1045.5	35.4	592	13	US-10-047-593-2	Sequence 2, Appl
32	1045.5	35.4	592	13	US-10-047-593-4	Sequence 4, Appl
33	1045.5	35.4	609	14	US-10-318-780-11	Sequence 11, Appl
34	1045.5	35.4	607	14	US-10-318-780-10	Sequence 10, Appl
35	1033.5	35.0	571	15	US-10-424-599-217392	Sequence 217392,
36	1031	34.9	586	14	US-10-328-675A-8	Sequence 8, Appl
37	1031	34.9	586	15	US-10-374-780A-2062	Sequence 2062, Ap
38	1031	34.9	586	17	US-10-739-930-5507	Sequence 5907, Ap
39	1012	34.3	501	16	US-10-767-701-44737	Sequence 44737, A
40	1009	34.2	574	14	US-10-328-675A-70	Sequence 70, Appl
41	995	33.7	475	14	US-10-318-780-4	Sequence 4, Appl
42	987	33.4	455	10	US-09-848-841-12	Sequence 12, Appl
43	971.5	32.9	601	14	US-10-328-675A-18	Sequence 18, Appl
44	915	31.0	204	16	US-10-767-701-53491	Sequence 53491, A
45	846.5	28.7	409	15	US-10-425-114-39468	Sequence 39468, A

#### ALIGNMENTS

RESULT 1  
US-09-848-841-10  
; Sequence 10, Application US/0984841  
; Publication No. US20030172411A1  
GENERAL INFORMATION:  
; APPLICANT: E. I. du Pont de Nemours and Company  
; APPLICANT: Butler, Karla  
; APPLICANT: Falco, Carl  
; APPLICANT: Famodu, Omolayo O.  
; APPLICANT: Fang, Yiwen  
; APPLICANT: Han, Feng  
; APPLICANT: Heppard, Elmer  
; APPLICANT: Liu, Zhan-Bin  
; APPLICANT: Miao, Gou-Hau  
; APPLICANT: Odell, Joan  
; APPLICANT: Rafalski, Antoni  
; TITLE OF INVENTION: Disease Resistance Factors  
; FILE REFERENCE: B1252 US NAI  
; CURRENT APPLICATION NUMBER: US/09/848, 841  
; PRIOR FILING DATE: 2001-05-04  
; PRIOR APPLICATION NUMBER: 60/107,242  
; PRIOR FILING DATE: 1998-11-05  
; PRIOR APPLICATION NUMBER: US99/25,953  
; NUMBER OF SEQ ID NOS: 17  
; SOFTWARE: Microsoft Office 97  
; SEQ ID NO 10  
; LENGTH: 582  
; TYPE: PRT  
; ORGANISM: Oryza sativa  
US-09-848-841-10

Query Match 99.4%; Score 2934; DB 10; Length 582;  
Best Local Similarity 99.5%; Prod. No. 2e-246; Indels 0; Gaps 0;  
Matches 579; Conservative 0; Mismatches 3;

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Db 1 MERTSHVTNPFSDSDSASVEEGDADADADADVEALRRLSDNLAAAFSPEDPAFLADARIA 60
QY 61 VPGGGGGGGDLRHRVCVLSARSPFLRGVFARRAAAAAGGGGDSERLEIRELGGGGE 120
Db 61 VPGGGGGGGDLRHRVCVLSARSPFLRGVFARRAAAAAGGGGDSERLEIRELGGGGE 120
QY 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHVCHPAAVMAQVLPAASTFOVA 180
Db 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHVCHPAAVMAQVLPAASTFOVA 180
QY 181 ELTNLFORRLDVLDRKVEVDNLILSVANLCKNSCKMLERCLDMVVRNSLMTLEKS 240
Db 181 ELTNLFORRLDVLDRKVEVDNLILSVANLCKNSCKMLERCLDMVVRNSLMTLEKS 240
QY 241 LPPDVVKQIIDARLSLGLISPEKGFPMKHVRIRHRLDSDDVLEVRMLTTEGQTNLDDA 300
Db 241 LPPDVVKQIIDARLSLGLISPEKGFPMKHVRIRHRLDSDDVLEVRMLTTEGQTNLDDA 300
QY 301 FALHYAVEHCDSKITTELDLALADVNHRNPRGYTVLHIAARRREPKIIVSLITKGARPA 360
Db 301 FALHYAVEHCDSKITTELDLALADVNHRNPRGYTVLHIAARRREPKIIVSLITKGARPA 360
QY 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRLCIILEQARERDPOLGEASVSLA 420
Db 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRLCIILEQARERDPOLGEASVSLA 420
QY 421 MAGESLRGRLLYENRVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
Db 421 MAGESLRGRLLYENRVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
QY 481 DINESPFIKEEHLARMTALSKTVELGKRFPRCSNVLDKIMDETDPVSLIGRDTSAEKR 540
Db 481 DINESPFIKEEHLARMTALSKTVELGKRFPRCSNVLDKIMDETDPVSLIGRDTSAEKR 540
QY 541 KRPHDQDVLQKAFHEDEKENDRSGLSSSSSSTSGAIRPRR 582
Db 541 KRPHDQDVLQKAFHEDEKENDRSGLSSSSSSTSGAIRPRR 582

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RESULT 2
US-10-374-780A-597
/ Sequence 597, Application US/10374780A
/ Publication No. US20040019927A1
/ GENERAL INFORMATION:
/ APPLICANT: Sherman, Bradley K
/ APPLICANT: Riechmann, Jose Luis
/ APPLICANT: Jiang, Cai-Zhong
/ APPLICANT: Heard, Jacqueline E
/ APPLICANT: Haake, Volker
/ APPLICANT: Creelman, Robert A
/ APPLICANT: Ratcliffe, Oliver
/ APPLICANT: Adam, Luc J
/ APPLICANT: Reuber, T. Lynne
/ APPLICANT: Keddie, James
/ APPLICANT: Brown, Pierre E
/ APPLICANT: Pilgrim, Marsha L
/ APPLICANT: Dubell III, Arnold T
/ APPLICANT: Pineda, Omaira
/ APPLICANT: Yu, Guo-Liang
/ TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS
/ FILE REFERENCE: MBI-0047 CIP
/ CURRENT APPLICATION NUMBER: US/10/374,780A
/ PRIOR FILING DATE: 2003-02-25
/ PRIOR APPLICATION NUMBER: 09/837,944
/ PRIOR FILING DATE: 2001-04-18
/ PRIOR APPLICATION NUMBER: 60/310,847
/ PRIOR FILING DATE: 2001-08-09
/ PRIOR APPLICATION NUMBER: 09/934,455
/ PRIOR FILING DATE: 2001-08-22
/ PRIOR APPLICATION NUMBER: 60/336,049
/ PRIOR FILING DATE: 2001-11-19

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/ PRIOR APPLICATION NUMBER: 60/338,692
/ PRIOR FILING DATE: 2001-12-11
/ PRIOR APPLICATION NUMBER: 10/171,468
/ PRIOR FILING DATE: 2002-06-14
/ PRIOR APPLICATION NUMBER: 10/225,066
/ PRIOR FILING DATE: 2002-08-09
/ PRIOR APPLICATION NUMBER: 10/225,067
/ PRIOR FILING DATE: 2002-08-09
/ PRIOR APPLICATION NUMBER: 10/225,068
/ PRIOR FILING DATE: 2002-08-09
/ NUMBER OF SEQ ID NOS: 2906
/ SOFTWARE: PatentIn version 3.2
/ SEQ ID NO 597
/ LENGTH: 615
/ TYPE: PR
/ ORGANISM: Oryza sativa
/ FEATURES:
/ OTHER INFORMATION: Orthologous to G278
US-10-374-780A-597

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```

Query Match 98.5%; Score 2907.5; DB 15; Length 615;
Best Local Similarity 94.1%; Pred. No. 4,4e-244;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

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QY 1 MERTSHVTNPFSDSDSASVEEGDADADADVEALRRLSDNLAAAFSPEDPAFLADARIA 60
Db 1 MERTSHVTNPFSDSDSASVEEGDADADADADVEALRRLSDNLAAAFSPEDPAFLADARIA 60
QY 61 VPGGGGGGGDLRHRVCVLSARSPFLRGVFARRAAAAAGGGGDSERLEIRELGGGGE 120
Db 61 VPGGGGGGGDLRHRVCVLSARSPFLRGVFARRAAAAAGGGGDSERLEIRELGGGGE 120
QY 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHVCHPAAVMAQVLPAASTFOVA 180
Db 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHVCHPAAVMAQVLPAASTFOVA 180
QY 181 ELTNLFORRLDVLDRKVEVDNLILSVANLCKNSCKMLERCLDMVVRNSLMTLEKS 240
Db 181 ELTNLFORRLDVLDRKVEVDNLILSVANLCKNSCKMLERCLDMVVRNSLMTLEKS 240
QY 241 LPPDVVKQIIDARLSLGLISPEKGFPMKHVRIRHRLDSDDVLEVRMLTTEGQTNLDDA 300
Db 241 LPPDVVKQIIDARLSLGLISPEKGFPMKHVRIRHRLDSDDVLEVRMLTTEGQTNLDDA 300
QY 301 FALHYAVEHCDSKITTELDLALADVNHRNPRGYTVLHIAARRREPKIIVSLITKGARPA 360
Db 301 FALHYAVEHCDSKITTELDLALADVNHRNPRGYTVLHIAARRREPKIIVSLITKGARPA 360
QY 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRLCIILEQARERDPOLGEASVSLA 420
Db 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRLCIILEQARERDPOLGEASVSLA 420
QY 421 MAGESLRGRLLYENRVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
Db 421 MAGESLRGRLLYENRVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
QY 448 ARVAMDIQVDTGLEFNLGSGANPPERORTTVLINESPFIKEEHLARMTALSKTVELG 507
Db 448 ARVAMDIQVDTGLEFNLGSGANPPERORTTVLINESPFIKEEHLARMTALSKTVELG 507
QY 508 KRFPFRCNVLDKIMDETDPVSLIGRDTSAEKKRPHDQDVLQKAFHEDEKENDRSGLS 567
Db 508 KRFPFRCNVLDKIMDETDPVSLIGRDTSAEKKRPHDQDVLQKAFHEDEKENDRSGLS 567
QY 541 KRFPFRCNVLDKIMDETDPVSLIGRDTSAEKKRPHDQDVLQKAFHEDEKENDRSGLS 600
Db 541 KRFPFRCNVLDKIMDETDPVSLIGRDTSAEKKRPHDQDVLQKAFHEDEKENDRSGLS 600
QY 568 SSSSSTSGAIRPRR 582
Db 568 SSSSSTSGAIRPRR 582
QY 601 SSSSSTSGAIRPRR 615
Db 601 SSSSSTSGAIRPRR 615

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RESULT 3
US-10-437-963-153749
/ Sequence 153749, Application US/10437963
/ Publication No. US20040123343A1

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```
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa, Thomas J.
/ APPLICANT: Kovalic, David K.
/ APPLICANT: Zhou, Yihua
/ APPLICANT: Cao, Yongwei
/ APPLICANT: Mu, Wei
/ APPLICANT: Boukharov, Andrey A.
/ APPLICANT: Barbazuk, Brad
/ APPLICANT: Li, Ping
/ TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
/ TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
/ FILE REFERENCE: 38-21(5322)B
/ CURRENT FILING DATE: 2003-05-14
/ NUMBER OF SEQ ID NOS: 204966
/ SEQ ID NO 153749
/ LENGTH: 615
/ TYPE: PRT
/ ORGANISM: Oryza sativa
/ FEATURE:
/ OTHER INFORMATION: Clone ID: PAT_MRT4530_53675C.1.pep
US-10-437-963-153749

Query Match          98.5%; Score 2907.5; DB 16; Length 615;
Best Local Similarity 94.1%; Pred. No. 4.4e-244;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

QY 1 MBPSSHYNAPSDSDSASVEGDADADADVEALRSLDNILAAFPSPDPFAFLADARIA 60
DB 1 MBPSSHYNAPSDSDSASVEGDADADVEALRSLDNILAAFPSPDPFAFLADARIA 60
QY 61 VEGGGGGGDDLVRHRCVLSARSFPLRGVFAARRAAAAAGGSGEDSELELRELLGGGGE 120
DB 61 VEGGGGGGDDLVRHRCVLSARSFPLRGVFAARRAAAAAGGSGEDSELELRELLGGGGE 120
QY 121 VEVGVBALRLVDLYSGVGVGLPKAACLCVDEDCAHVGHCPAVAFMAOVLFAASTFOYA 180
DB 121 VEVGVBALRLVDLYSGVGVGLPKAACLCVDEDCAHVGHCPAVAFMAOVLFAASTFOYA 180
QY 122 VEVGVBALRLVDLYSGVGVGLPKAACLCVDEDCAHVGHCPAVAFMAOVLFAASTFOYA 180
DB 122 VEVGVBALRLVDLYSGVGVGLPKAACLCVDEDCAHVGHCPAVAFMAOVLFAASTFOYA 180
QY 181 ELTNLFORRLDVLDEVNDNLILISVANLCKNSCKMLERCLDMVVRNSLDMITLES 240
DB 181 ELTNLFORRLDVLDEVNDNLILISVANLCKNSCKMLERCLDMVVRNSLDMITLES 240
QY 241 LPPDVVKQIIDARLSGLISPEKGFPPNKHVRRIHRLDSDDVLYRMLLTGQTNLDA 300
DB 241 LPPDVVKQIIDARLSGLISPEKGFPPNKHVRRIHRLDSDDVLYRMLLTGQTNLDA 300
QY 301 PALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRRBPXIIIVSLITKGARPA 360
DB 301 PALHYAVEHCDSKITTELLDLALADVNHRNPRGYTVLHIAARRRBPXIIIVSLITKGARPA 360
QY 361 DVTFGORCAVQISKRLTKGQDYGVTGEBKSPKDLCTEILFOARRRPOQGEASVSLA 420
DB 361 DVTFGORCAVQISKRLTKGQDYGVTGEBKSPKDLCTEILFOARRRPOQGEASVSLA 420
QY 421 MAGESLGRLLYLENR-----VALARIPEME 447
DB 421 MAGESLGRLLYLENR-----VALARIPEME 447
QY 448 ARAVANDIAQVDTLEFNLSGANPPERQRTTYDNLNESPIMKEEHLAARMTALSKTVELG 507
DB 448 ARAVANDIAQVDTLEFNLSGANPPERQRTTYDNLNESPIMKEEHLAARMTALSKTVELG 507
QY 508 KGFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 567
DB 508 KGFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 567
QY 541 KGFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 600
DB 541 KGFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 600
QY 568 SSSSTSIGAIRPRR 582
DB 568 SSSSTSIGAIRPRR 582
QY 601 SSSSTSIGAIRPRR 615
DB 601 SSSSTSIGAIRPRR 615

RESULT 4
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```
US-10-425-115-246254
/ Sequence 246254, Application US/10425115
/ Publication No. US20040214272A1
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa, Thomas J.
/ APPLICANT: Kovalic, David K.
/ APPLICANT: Zhou, Yihua
/ APPLICANT: Cao, Yongwei
/ APPLICANT: Li, Ping
/ TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
/ TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
/ FILE REFERENCE: 38-21(5322)B
/ CURRENT FILING DATE: 2003-04-28
/ NUMBER OF SEQ ID NOS: 369326
/ SEQ ID NO 246254
/ LENGTH: 447
/ TYPE: PRT
/ ORGANISM: Zea mays
/ FEATURE:
/ OTHER INFORMATION: Clone ID: MRT4577_156165C.1.pep
US-10-425-115-246254

Query Match          64.8%; Score 1913; DB 17; Length 447;
Best Local Similarity 84.6%; Pred. No. 1.2e-157;
Matches 379; Conservative 31; Mismatches 32; Indels 6; Gaps 3;

QY 140 VGDLPKAACTCVDDE-CAHVGHCPAVAFMAOVLFAASTFOVAELTVLFORRLDVLDDYB 198
DB 1 VAALEPKAACLCVDEDCAHVGHCPAVAFMAOVLFAASTFOVAELTVLFORRLDVLDDYB 60
QY 199 VNNLLILISVANLCKNSCKMLERCLDMVVRNSLDMITLESKLPDVVKQIIDARLSGL 258
DB 61 VNNLLILISVANLCKNSCKMLERCLDMVVRNSLDMITLESKLPDVVKQIIDARLSGL 120
QY 259 ISPEKGFPPNKHVRRIHRLDSDDVLYRMLLTGQTNLDPALHYAVEHCDSKITTEL 318
DB 121 VSPEDGFPPNKHVRRIHRLDSDDVLYRMLLTGQTNLDPALHYAVEHCDSKITTEL 180
QY 319 LPLALADVNRNPRGYTVLHIAARRRBPXIIIVSLITKGARPAVDPFGKAAVOISKRLTK 378
DB 181 LPLALADVNRNPRGYTVLHIAARRRBPXIIIVSLITKGARPAVDPFGKAAVOISKRLTK 240
QY 379 QGDYGVTEBGRSPKDLCTEILFOARRRPOQGEASVSLAMAGESLGRLLYLENRVA 438
DB 241 HGDYGVTEBGRSPKDLCTEILFOARRRPOQGEASVSLAMAGESLGRLLYLENRVA 300
QY 439 LARIMEARVANDIAQVDTLEFNLSGANPPERQRTTYDNLNESPIMKEEHLAARMT 498
DB 301 LARIMEARVANDIAQVDTLEFNLSGANPPERQRTTYDNLNESPIMKEEHLAARMT 359
QY 499 ALSKTVELGKRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDK 558
DB 360 ALSKTVELGKRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDK 419
QY 559 EENDRSGL-----SSSSSTSIGAIRPRR 582
DB 420 EENDRSGL-----SSSSSTSIGAIRPRR 447

RESULT 5
US-10-328-675A-4
/ Sequence 4, Application US/10328675A
/ Publication No. US20030159171A1
/ GENERAL INFORMATION:
/ APPLICANT: Salomon, John
/ APPLICANT: Weislo, Laura
/ APPLICANT: Willits, Michael
/ TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
/ FILE REFERENCE: 30857USNPDI
/ CURRENT FILING DATE: 2002-12-23
/ PRIOR APPLICATION NUMBER: 09/519,232
/ PRIOR FILING DATE: 2000-03-06
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/ PRIOR APPLICATION NUMBER: 60/219,338  
 / PRIOR FILING DATE: 1999-03-09  
 / NUMBER OF SEQ ID NOS: 74  
 / SOFTWARE: Patent In Ver. 2.1  
 / SEQ ID NO: 4  
 / LENGTH: 576  
 / TYPE: PR  
 / ORGANISM: Lycopersicon esculentum  
 / US-10-328-675A-4

Query Match 58.8%; Score 1737; DB 14; Length 576;  
 Best Local Similarity 59.9%; Pred. No. 3.7e-142;  
 Matches 349; Conservative 94; Mismatches 108; Indels 32; Gaps 8;

QY 11 AFSGSDAS-----VEGDADADADVEALRLSDNLAFAF-RSPEDPAFLADRIAPV 62  
 DB 6 AFSGSDNISSSSSICCNSESETSL-ADVNSLKRSLSTLESIPDASRPDPDFADAKLAP 64  
 QY 63 GGGGGGDLVHRCVLSARSPPFLRGVFARAAAAAGGGEDESERLEIRELIGGGEEVE 122  
 DB 65 -----GKKEIPVHRCILSARSPPFKNVFC-----GKDSSTLELEKEIM---KEYE 106  
 QY 123 VGYEALRLVLDIYSGRVGDLPPAACTCYDEDCAHVGHAPAAVLPAASTFOVAEL 182  
 DB 107 VSTDAVAVSLAYLSGKVPASKDVCCVDNECLHVAORPAVAVQVLVASFTEQSOL 166  
 QY 183 TMLFORRLDVLDKVEVDNLILISVANLCNKSCKMLERCLDMVRSNLDMLTLEKSLP 242  
 DB 167 VDFQFHLLDIDDKAVADVAVMVLVSVANICGACERLLSRICIDIVSNDIITLDRSLP 226  
 QY 243 PVIYQIILARSLGLISPEKGFPMKIVRIRHRLDSDVLELRMLLTGQTNLDAPA 302  
 DB 227 HVIYQIITDSRAELIQSPESNGFPDKIVKRIHRLDSDVLELRMLLTGQTNLDAPA 286  
 QY 303 LHYAVEHCDSKITTELLDLADLVNHRNPRGYTVLHIAARRREKTIIVSLITGAPADV 362  
 DB 287 LHYAAYCDAKTTAELDLADLVNHRNPRGYTVLHIAARRREKTIIVSLITGAPADV 346  
 QY 363 TPDGKAVQISKRITKQDYGVTGEGSPKRLCEILEOABERDPOLGASVSLAMA 422  
 DB 347 TSDGKRLQIAKRLTRLVDFTKSTEEKSAPKORLCIEILEOABERDPOLGASVSLAMA 406  
 QY 423 GESIRGRLLYLENNVALARIMFPEARVANDIAQVDTLEFNIGSGANPPRORTYVL 482  
 DB 407 GDDLRLMLLYLENNVGLAKLIFPMEAKVANDIAQVDTSEPLASMRKTIADAQRTYVL 466  
 QY 483 NESFPIKEEHLAMTALSTKVELGKRFPPRCNSVLDKIM--DDETDPVSLGRDSAE-- 538  
 DB 467 NEAPFPKKEEHLNRRLSRTELGRKFPFRCSEVANKIMDADDDSEIAYMGNDTVERQ 526  
 QY 539 -KRRFHDLDVLOKAFHEDEKENDRSGLSSSSSSTSGAIRP 580  
 DB 527 LKKQRYWELOEILTKAFTEDEKEFAKTMNSSSCSSSTSGKVDKP 569

RESULT 6  
 US-08-908-884-14  
 / Sequence 14, Application US/08908884  
 / Publication No. US20020138872A1  
 / GENERAL INFORMATION:  
 / APPLICANT: Dong et al.  
 / TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF  
 / NUMBER OF SEQUENCES: 28  
 / CORRESPONDENCE ADDRESS:  
 / ADDRESSEE: Clark & Elbing LLP  
 / STREET: 176 Federal Street  
 / CITY: Boston  
 / STATE: MA  
 / COUNTRY: USA  
 / ZIP: 02110  
 / COMPUTER READABLE FORM:  
 / MEDIUM TYPE: Diskette  
 / COMPUTER: IBM Compatible

/ OPERATING SYSTEM: DOS  
 / SOFTWARE: FASTSD for Windows Version 2.0  
 / CURRENT APPLICATION DATA:  
 / APPLICATION NUMBER: US/08/908,884  
 / FILING DATE:  
 / CLASSIFICATION: 800  
 / PRIOR APPLICATION DATA:  
 / APPLICATION NUMBER: 60/023,851  
 / FILING DATE: August 9, 1996  
 / APPLICATION NUMBER: 60/035,166  
 / FILING DATE: January 10, 1997  
 / APPLICATION NUMBER: 60/046,769  
 / FILING DATE: May 16, 1997  
 / ATTORNEY/AGENT INFORMATION:  
 / NAME: Elbing, Karen L.  
 / REGISTRATION NUMBER: 35,238  
 / REFERENCE/DOCKET NUMBER: 00786/339004  
 / TELECOMMUNICATION INFORMATION:  
 / TELEPHONE: 617-428-0200  
 / TELEFAX: 617-428-7045  
 / INFORMATION FOR SEQ ID NO: 14:  
 / SEQUENCE CHARACTERISTICS:  
 / LENGTH: 588 amino acids  
 / TYPE: amino acid  
 / STRANDEDNESS: single  
 / TOPOLOGY: linear  
 / MOLECULE TYPE: protein  
 / US-08-908-884-14

Query Match 56.7%; Score 1672.5; DB 8; Length 588;  
 Best Local Similarity 56.8%; Pred. No. 1.6e-136;  
 Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;

QY 11 AFSGSDASVVE-----GDADADADVEALRLSDNLAFAF-RSPEDPAFLAD 56  
 DB 7 AFSGSDNISSSSSICCGGMEFEPSPSPALISIKRLSTLESIPDASIPEDYPAD 66  
 QY 57 ARIAVPGGGGGDLVHRCVLSARSPPFLRGVFARAAAAAGGGEDESERLEIRELIG 116  
 DB 67 AKLV--SGPCKEIPVHRCILSARSPPFKNVFC-----GKKEKNSVLEKEVM-- 113  
 QY 117 GGEVEVGYEALRLVLDIYSGRVGDLPPAACTCYDEDCAHVGHAPAAVLPAAST 176  
 DB 114 --KEHVSVDVAVSLAYLSGKVPASKDVCCVDNDCSHVACRPAAVFLVEVLYTSFT 171  
 QY 177 FOYAEITMLFORRLDVLDKVEVDNLILISVANLCNKSCKMLERCLDMVRSNLDMLT 236  
 DB 172 FOISELVDFQFHLLDIDDKTAADLVNHRNPRGYTVLHIAARRREKTIIVSLITG 231  
 QY 237 LEKSLPPIYQIILARSLGLISPEKGFPMKIVRIRHRLDSDVLELRMLLTGQTN 296  
 DB 232 LDKALPFIHVIQIITDSRAELIQSPESNGFPDKIVKRIHRLDSDVLELRMLLTG 291  
 QY 297 LDDAFALHAYEHCDSKITTELLDLADLVNHRNPRGYTVLHIAARRREKTIIVSLITG 356  
 DB 292 LDDAFALHAYAYCDAKTTAELDLADLVNHRNPRGYTVLHIAARRREKTIIVSLITG 351  
 QY 357 ARPADVTPDGKAVQISKRITKQDYGVTGEGSPKRLCEILEOABERDPOLGAS 416  
 DB 352 ARPSDLTSDGKRLQIAKRLTRLVDFPSKPEBSKASNRCLCEILEOABERDPOLGAS 411  
 QY 417 VSLMAGESIRGRLLYLENNVALARIMFPEARVANDIAQVDTSEPLASIGKMAANO 471  
 DB 412 VSLMAADDDRLMLLYLENNVGLAKLIFPMEAKVANDIAQVDTSEPLASIGKMAANO 471  
 QY 477 RTVDLNESEPIKEEHLAMTALSTKVELGKRFPPRCNSVLDKIM--DDETDPVSLGRD 534  
 DB 472 RTVDLNEAPFKIKEEHLNRRLSRTELGRKFPFRCSEVANKIMDADDDSEIAYMGND 531  
 QY 535 TSAE--KRRFHDLDVLOKAFHEDEKENDR-SGLSSSSSTSGAIRPPR 582  
 DB 532 TABERQLKKQRYWELOEILTKAFTEDEKTKNNISSSCSSSTSGKVDKP 583





Query Match	55.2%	Score 1629	DR 14	Length 604
Best Local Similarity	57.4%	Pred. No. 1e-132		
Matches 343	Conservative 81	Mismatches 130	Indels 44	Gaps 10
QY	11	AFSDSDAS-----VEGDADADADVEALRLSDNTAAFR---SPED 50		
Db	15	AFSDSDNDISNGSSICCAVATTTTTTTTAAENSLSPDDAALLRLSENDSLQPSLSID 74		
QY	51	FAFLADAIAPGGGGGGGDLRYRHCVCVSANSPFLRGVPARRAAAAAGGGGDSER--- 107		
Db	75	SDFSDAIVT---SGDSREVAVHRCVLSRSRSPFRSFAFSRERKEK---ERDKERVVK 127		
QY	108	LELELLGGGEEVEVEALRLVLDLYLSGRVGLPFAACLCVDEDCAHYGCHPAVAFM 167		
Db	128	LELKDLAG---DFEVGFDSVVAVLGYLYSGKVRNLPGLICVCVDDEDSHACRPAYDFV 183		
QY	168	AQVLEPASTFOVAELTNLFORELLDVLDKVEVDNLLILTSVANI CNKSCMLTERCIDMV 227		
Db	184	VEVLYLSKFEIVELVSLYORHLIDIDKIPDDVLVLSVAEMCGNACDGLRLRCIDKI 243		
QY	228	VRSNIDMTTELEKSLPPDYIKQIIPARLSGLAISPENKGFPMKHRYIRHRLSDSDVELVR 287		
Db	244	VRSDIDVTTIDKSLPQNVVKQIIDRKELGTTEGRVEFPKHYKRIHRALESDDVELVR 303		
QY	288	MLLTGQTNLDDAPALHYAVEHCDSKITTELLDLALADVNRHNRPGYTVLIIAARREPK 347		
Db	304	MLLKERHTTDDAALHYAAVHCAKATTELLLEGLADVNRRLRGHTVLHVAAMREPK 363		
QY	348	IIVSLTRKGAAPAVTFDGRKAVOISKRITQGGYVPGVTBEGKRSPPDRCLCITELBOAER 407		
Db	364	IIVSLTRKGAHPSIITSDDKALDIARGLTAVDFYTTGGKQAPDRCLCITELBOAER 423		

	Query Match	48.3%	Score 1425.5	DB 15	Length 335
	Best Local Similarity	83.9%	Pred. No. 2.3e-115		
	Matches 282	Conservative 24	Mismatches 25	Indels 5	Gaps 2
QY	251	DARSLGLISPEKNGFPNKKVRRIRHRLASDDVELVRMLLTGGQTLDDAFALHYAVEHC	310		
Db	1	DARSLGLISVEQDGFPNIHRRIRHRLASDDVELVRMLLKSGKTNLDAYALHYAVEHC	60		
QY	311	DSKITTEHLLDALADVHNRRPQYTVLMIHAARRREKIIIVSLLTGKAPADVTFDGRKAV	370		
Db	61	DSKITTEHLLDALADVHNRRPQYTVLMIHAARRREKIIIVSLLTGKAPSDLTFDDRAKAV	120		
QY	371	QISRKLTKGGYRCVWEEGKSPKDKLCTEILFQARRPPOUGKASVSLIANGSESLRRL	430		
Db	121	QISRKLTKGGYRCPEEDGKSPKDKLCTEVLQARRPPOUGKASVSLIANGSARRL	180		
QY	431	LYLENRVALARINPEMARVAMDAVDGTELFENIGSGANPPERQORTVDLNPITMK	490		
Db	181	LYLENRVALARILPEMARVAMDAVDGTELFETLVSSVNLPAELQR-TVDLNDPPTMK	239		
QY	491	EEHILARNTALSKTVELGKRPFPKCSNVLDKIMDDETDPVSLGRDTSAAKRRFHDLDVL	550		
Db	240	EEHILARNTALSKTVELGKRPFPKCSKVLDTIMDDEAMASLGROTSAAKRRFHDLDVL	299		
QY	551	QKAFHEHKEENDSGL-----SSSSSSTSGAIRPPR	582		
Db	300	QKASVEDKEENDRSAAKSPSSSTTTTTSIGAARPPR	335		

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RESULT 11
US-08-908-884-3
; Sequence 3, Application US
; Publication No. US20020138
; GENERAL INFORMATION:
APPLICANT: Dong et al

```

```

? TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
? NUMBER OF SEQUENCES: 28
? CORRESPONDENCE ADDRESS:
? ADDRESSER: Clark & Elbing LLP
? STREET: 176 Federal Street
? CITY: Boston
? STATE: MA
? COUNTRY: USA
? ZIP: 02110
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Diskette
? OPERATING SYSTEM: IBM Compatible
? SOFTWARE: FASTSEQ for Windows Version 2.0
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/08/908,884
? FILING DATE:
? CLASSIFICATION: 800
? PRIOR APPLICATION DATA:
? APPLICATION NUMBER: 60/023,851
? FILING DATE: August 9, 1996
? APPLICATION NUMBER: 60/035,166
? FILING DATE: January 10, 1997
? APPLICATION NUMBER: 60/046,769
? FILING DATE: May 16, 1997
? ATTORNEY/AGENT INFORMATION:
? NAME: Elbing, Karen L.
? REGISTRATION NUMBER: 35,238
? REFERENCE/DOCKET NUMBER: 00786/339004
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: 617-428-0200
? TELEFAX: 617-428-7045
? INFORMATION FOR SEQ ID NO: 3:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 593 amino acids
? TYPE: amino acid
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: protein
? US-08-908-884-3

Query Match 43.2%; Score 1276; DB 8; Length 593;
Best Local Similarity 47.2%; Pred. No. 5.6e-102;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDDSASVEEGDADADADVEALRLSDNLAARFSPDPFAFLADARIIVPGG 64
DB 17 TSVFVATNDTDSIVLYAARQVLTGPVVSALQLLSNFSFESVFPSPDD--FYSDAKLVL--- 71
QY 65 GGGGGDLRHYRCVLSARSPFLRGVFPARRAAAAAGGGGEGDSERLEIRELLGGGGEVEVYG 124
DB 72 -SDGREVSFHRCLVLSARSPFKSALA--AAKKKSDSNNTAAVLELKEI---AKDYEVG 124
QY 125 YEALRLVLDLYSGRVDLPKAACTCVDDECAHVGHGPAVAFMAOYLFAASTFOVALTN 184
DB 125 PSQVTVLAVVSSRVPRPKGSECADENCVACRPAPVDFMLBVLVLAFFIKIPDLTT 184
QY 185 LPQRRLDVLDKVEVNLLILSVANLCNKSCKMLERCLDMYVRNSLDMITTEKSLRPD 244
DB 185 LYQRRLDVLDDKVIDTLVILKLANICGACAKMLDRCKEIIIVKSNVDVSLSEKSLPEE 244
QY 245 VIKQITDARSLGLISPEKGFPNKGVRIIRALDSDVLEVMVLTEGOTNDDAFALH 304
DB 245 LVEIITDRKEGLBEPKPK---KIVSNVHKALDSDDIIEVLGLKEBHTNDDACALH 300
QY 305 YAVEHCDSKITTELLDLALADVNNRPRGYTVLHIAARRRPEKIIIVSLTKGARPADVTF 364
DB 301 FAVAAYCNVXTATDLTKLADLVNHRNPRGYTVLHVAMRKEPQLIISLEKGSASEATL 360
QY 365 DGRKAVQISKRLTKGGDYFEGVTEEGKSPKDRCTIETLEAERDDQ/GEASVSLMAGE 424
DB 361 EGRITALIMAKQATMAVECCNNIPQCKRGLSKGRLCVEITLEQEDRKEQIPRODVPPSFVAVAD 420
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QY 425 SIKRGLIYENRVALARIMPEMEARYAMDIADQDTLEPNLGSANPPPER---ORTTV 480
DB 421 ELKMTLLDENVVALAORLFPTEAQAMEIAEKKGCEPIVTS--LEPDRLTGTRTSP 477
QY 481 DINESPFIKMEKHLAMTALSTVELGKRFPRCSNVLKIND-DETDVSLGRDTSAEK 539
DB 478 GVKIAFRIIEHOSHRLKALSTVELGKRFPRCSNVLDQINCEDLTOLACGEDDTAEK 537
QY 540 R---KRFHDLQVLOKAFHEDKEENDRSGLSSSSSTS 574
DB 538 RLOKKQRMVEIOETLKKAFSEDLNLGNSLIDTSSTS 576

RESULT 12
US-09-908-323-3
? Sequence 3, Application US/09908323
? Patent No. US20020073447A1
? GENERAL INFORMATION:
? APPLICANT: Dong et al.
? TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
? NUMBER OF SEQUENCES: 28
? CORRESPONDENCE ADDRESS:
? ADDRESSER: Clark & Elbing LLP
? STREET: 176 Federal Street
? CITY: Boston
? STATE: MA
? COUNTRY: USA
? ZIP: 02110
? COMPUTER READABLE FORM:
? MEDIUM TYPE: Diskette
? OPERATING SYSTEM: IBM Compatible
? SOFTWARE: FASTSEQ for Windows Version 2.0
? CURRENT APPLICATION DATA:
? APPLICATION NUMBER: US/09/908,323
? FILING DATE: 17-Jul-2001
? CLASSIFICATION: <Unknown>
? PRIOR APPLICATION DATA:
? APPLICATION NUMBER: 08/908,884
? FILING DATE: <Unknown>
? APPLICATION NUMBER: 60/035,166
? FILING DATE: January 10, 1997
? APPLICATION NUMBER: 60/046,769
? FILING DATE: May 16, 1997
? ATTORNEY/AGENT INFORMATION:
? NAME: Elbing, Karen L.
? REGISTRATION NUMBER: 35,238
? REFERENCE/DOCKET NUMBER: 00786/339004
? TELECOMMUNICATION INFORMATION:
? TELEPHONE: 617-428-0200
? TELEFAX: 617-428-7045
? INFORMATION FOR SEQ ID NO: 3:
? SEQUENCE CHARACTERISTICS:
? LENGTH: 593 amino acids
? TYPE: amino acid
? STRANDEDNESS: single
? TOPOLOGY: linear
? MOLECULE TYPE: protein
? SEQUENCE DESCRIPTION: SEQ ID NO: 3:
? US-09-908-323-3

Query Match 43.2%; Score 1276; DB 9; Length 593;
Best Local Similarity 47.2%; Pred. No. 5.6e-102;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNAPSDDSASVEEGDADADADVEALRLSDNLAARFSPDPFAFLADARIIVPGG 64
DB 17 TSVFVATNDTDSIVLYAARQVLTGPVVSALQLLSNFSFESVFPSPDD--FYSDAKLVL--- 71
QY 65 GGGGGDLRHYRCVLSARSPFLRGVFPARRAAAAAGGGGEGDSERLEIRELLGGGGEVEVYG 124
DB 72 -SDGREVSFHRCLVLSARSPFKSALA--AAKKKSDSNNTAAVLELKEI---AKDYEVG 124
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QY 125 YEALRLVDLYXSGRVDLPRKACLVDDECAHVGPAPMAQVTPAASTFOVAELTN 184  
Db 125 FDSVTVLAVYSSRVPPKGVSECADENCCHVACRPADVPMLEVTYLAFFIKIPELIT 184  
QY 185 LFORRLDVLDKYEVNDMLILSVANLCNKSCKMLIERCLDMVVRNSLDMITLEKSLPPD 244  
Db 185 LYQRHLDDVDKVIIEEDTVILIKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 244  
QY 245 VIKOIIDARLSGLISPEKGFPMKHVRIRHALSDVDELVRMLITTEGQTNLDAPALH 304  
Db 245 LYQRHLDDVDKVIIEEDTVILIKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 300  
QY 305 YAVHCDSKITTELDLADLVNHRNPRGYTVLHTAARRREPKIIVSLITKGPADVTF 364  
Db 301 FAVACNVKATATDLKLDLADVNHRNPRGYTVLHTAARRREPKIIVSLITKGPADVTF 360  
QY 365 DGRKAVOISKRLTKQGYFVTEBKGPSPKORLCIEIIEQARRDPOLGEASVSLMAGE 424  
Db 361 EGRITLMTAKQATMAVECNINPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSPAVAD 420  
QY 425 SLGRLLYLVENRVALARIMFPMEARVAMDTAQQVDTLEFNLGSGANPPPER---QRTTV 480  
Db 421 ELKMTLLDENRVALAQRTPTEAOAMEIAEMKGTCEFIYTS---LEPDRLTGTRKTSF 477  
QY 481 DINESPFIKKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETDPVSLGRDTSAEK 539  
Db 478 GVKIAPFRIIEHQSRKALSKTVELGKRPFRCSNVLDKIMD-DETDPVSLGRDTSAEK 537  
QY 540 R---KRFHDIQDVLOKAFHEDKEENDRSGLSSSSSTS 574  
Db 538 RLOKKQRYMEIOETLKAFSEDNLEIGNSLTDSTSTS 576

RESULT 13  
US-09-934-455-74  
/ Sequence 74, Application US/09934455  
/ Publication No. US20030121070A1  
/ GENERAL INFORMATION:  
/ APPLICANT: Adam, Luc  
/ APPLICANT: Creelman, Robert  
/ APPLICANT: Dubell, Arnold  
/ APPLICANT: Heard, Jacqueline  
/ APPLICANT: Jiang, Cai-zhong  
/ APPLICANT: Keddle, James  
/ APPLICANT: Pilgrim, Marsha  
/ APPLICANT: Ratcliffe, Oliver  
/ APPLICANT: Reuber, Lynne  
/ APPLICANT: Riechmann, Jose Luis  
/ APPLICANT: Yu, Guo-Liang  
/ APPLICANT: Pineda, Omaira  
/ TITLE OF INVENTION: Genes For Modifying Plant Traits IV  
/ FILE REFERENCE: MBI-0025  
/ CURRENT APPLICATION NUMBER: US/09/934,455  
/ CURRENT FILING DATE: 2001-08-22  
/ PRIOR APPLICATION NUMBER: 60/227439  
/ PRIOR FILING DATE: 2000-08-22  
/ PRIOR APPLICATION NUMBER: MBI-0022  
/ PRIOR FILING DATE: 2001-11-16  
/ PRIOR APPLICATION NUMBER: MBI-0023  
/ PRIOR FILING DATE: 2001-04-17  
/ NUMBER OF SEQ ID NOS: 516  
/ SOFTWARE: PatentIn version 3.1  
/ SEQ ID NO 74  
/ LENGTH: 593  
/ TYPE: PRT  
/ ORGANISM: Arabidopsis thaliana  
US-09-934-455-74

Query Match 43.2%; Score 1276; DB 10; Length 593;  
Beet Local Similarity 47.2%; Pred. No. 5,6e-102;  
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNARSDDSDSASVEGDADADVAELRLSUNLAAFRSPDFALADARIIVPGG 64

Db 17 TSFVATNDNTDSSIVLYLAAEQVLTGPVVSALQILNSNFESVFPSPDD--FYSDAKLVL--- 71  
QY 65 GGGGDLVHRVCVLSRSPFLRGVFRARAAAAGGGEGBSRLRLRELLGGGEVEVVG 124  
Db 72 -SDGREVSFHRCLVLSRSSFFYSALA--AAKESKSNNTAAVLELKEI---AKQYEVG 124  
QY 125 YEALRLVDLYXSGRVDLPRKACLVDDECAHVGPAPMAQVTPAASTFOVAELTN 184  
Db 125 FDSVTVLAVYSSRVPPKGVSECADENCCHVACRPADVPMLEVTYLAFFIKIPELIT 184  
QY 185 LFORRLDVLDKYEVNDMLILSVANLCNKSCKMLIERCLDMVVRNSLDMITLEKSLPPD 244  
Db 185 LYQRHLDDVDKVIIEEDTVILIKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 244  
QY 245 VIKOIIDARLSGLISPEKGFPMKHVRIRHALSDVDELVRMLITTEGQTNLDAPALH 304  
Db 245 LYQRHLDDVDKVIIEEDTVILIKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 300  
QY 305 YAVHCDSKITTELDLADLVNHRNPRGYTVLHTAARRREPKIIVSLITKGPADVTF 364  
Db 301 FAVACNVKATATDLKLDLADVNHRNPRGYTVLHTAARRREPKIIVSLITKGPADVTF 360  
QY 365 DGRKAVOISKRLTKQGYFVTEBKGPSPKORLCIEIIEQARRDPOLGEASVSLMAGE 424  
Db 361 EGRITLMTAKQATMAVECNINPEQCKHSLKGRLCVEILEQEDKREQIPRDVPPSPAVAD 420  
QY 425 SLGRLLYLVENRVALARIMFPMEARVAMDTAQQVDTLEFNLGSGANPPPER---QRTTV 480  
Db 421 ELKMTLLDENRVALAQRTPTEAOAMEIAEMKGTCEFIYTS---LEPDRLTGTRKTSF 477  
QY 481 DINESPFIKKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETDPVSLGRDTSAEK 539  
Db 478 GVKIAPFRIIEHQSRKALSKTVELGKRPFRCSNVLDKIMD-DETDPVSLGRDTSAEK 537  
QY 540 R---KRFHDIQDVLOKAFHEDKEENDRSGLSSSSSTS 574  
Db 538 RLOKKQRYMEIOETLKAFSEDNLEIGNSLTDSTSTS 576

RESULT 14  
US-09-848-841-17  
/ Sequence 17, Application US/09848841  
/ Publication No. US20030172411A1  
/ GENERAL INFORMATION:  
/ APPLICANT: Butler, Karla  
/ APPLICANT: Falco, Carl  
/ APPLICANT: Famodu, Omolayo O.  
/ APPLICANT: Fang, Yiwen  
/ APPLICANT: Han, Feng  
/ APPLICANT: Heppard, Elmer  
/ APPLICANT: Liao, Zhan-Bin  
/ APPLICANT: Miao, Gou-Hau  
/ APPLICANT: Odell, Joan  
/ APPLICANT: Rafaleki, Antoni  
/ TITLE OF INVENTION: Disease Resistance Factors  
/ FILE REFERENCE: BB1252 US NAI  
/ CURRENT APPLICATION NUMBER: US/09/848,841  
/ CURRENT FILING DATE: 2001-05-04  
/ PRIOR APPLICATION NUMBER: 60/107,242  
/ PRIOR FILING DATE: 1998-11-05  
/ PRIOR APPLICATION NUMBER: US99/75,953  
/ PRIOR FILING DATE: 1999-10-04  
/ NUMBER OF SEQ ID NOS: 17  
/ SOFTWARE: Microsoft Office 97  
/ SEQ ID NO 17  
/ LENGTH: 593  
/ TYPE: PRT  
/ ORGANISM: Arabidopsis thaliana  
US-09-848-841-17

Query Match 43.2%; Score 1276; DB 10; Length 593;

Best Local Similarity 47.2%; Pred. No. 5,6e-102; Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

5 TSHVNTAFSDSDSASVEEGDADADADVEALRLSDNLAAPSPEDFAFLADARIAPVPG 64  
17 TSFVATDNTDSSIVYLAAGVLTGPDVSAQLQLSNFSFVSPPD--FYSDAKLVL--- 71  
65 GGGGDDLVRHRCVLSARSPFLRGVFAARRAAAAAGGEGEDSRLRELELGGGEEVEVG 124  
72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKOSNNTAAVLEKEI----AKDYEVG 124  
125 YEALNLVDLYSGRVDLPKAAACLVDEDCAHVGCHPAFAVAQVLPFASTFOVAELTN 184  
125 FDSVTVTLAVYVSRRPPKGVSECADENCGHVACRPADVMEVLYAFIFKIPELTT 184  
185 LFQRLLDVLDRVEVDNLLIISVANLGNKSCMKLIERCLDMVVRNLMITLESKLPD 244  
185 LYQRLLDVLDRVDRKVLIEDLVILKLANICGAKCMKLDRCKEIIVSNVDMVLSLEKSP 244  
245 VIKQIIDARLSGLISPEKKGFPNKHVRIRHRLSDDELVEYRMILLTGQTNLDAFALH 304  
245 LVKEIIDRKEIGLEVPKVK---KHVSNVHALSDSDI-EIVKLLIKDHNTLDDACALH 300  
305 YAVEHCDSKITTELDLADVNHNRPGRYTVLHIAARRREPKIIVSLTGARPADVTF 364  
301 FAVAYCNVKTATDLKLADLADVNHNRPGRYTVLHVAAMKEPQLIISLEKASASEATL 360  
365 DGRKAVOISKRLTKODYFGVTEBGRSPKDLCTEIIIEQARRDPQLGEASVSLMAGE 424  
361 EERTALMTAKQATMAVECNRIPEQCHSLKGRLCVEILTEQEDREQIPRDVPPSPVAAD 420  
425 SURGRLLYENRVALARIMFPEARVANDIAQVDTLEFNLSGANPPR---ORTTV 480  
421 ELKMTLLDENVALAORLFPTEAQAAMETIAEMKGCETIVS--LEFDRLTGTRTSP 477  
481 DINESPFIKKEHLARMTALSTVELGKRPFRCSNVLDKIND-DETDVSLGRTSASK 539  
478 GVKIAPFRLIEBHOSRLKALSTVELGKRPFRCSAIVLDQIMNCEDLTQLACGEDDTARK 537  
540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574  
538 RLQKKQRYWEIQETLKKAFFSEDNLEIGNSLTDTSTSTS 576

Db

Query

US-10-079-035-3

Sequence 3, Application US/10079035

Publication No. US20020152499A1

GENERAL INFORMATION:

APPLICANT: Ryals, John

APPLICANT: Delaney, Terry

APPLICANT: Friedlich, Leslie

APPLICANT: Weymann, Kristiana

APPLICANT: Lawton, Kay

APPLICANT: Ellis, Daniel

APPLICANT: Uknes, Scott

APPLICANT: Jeese, Taco

TITLE OF INVENTION: GENE ENCODING A PROTEIN INVOLVED IN THE

TITLE OF INVENTION: SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS

NUMBER OF SEQUENCES: 17

CORRESPONDENCE ADDRESS:

ADDRESSEE: NO. US20020152499A1atlis Corporation

STREET: 520 White Plains Road, P.O. Box 2005

CITY: Tarrytown

STATE: New York

COUNTRY: USA

ZIP: 10591

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/079,035

FILING DATE:

CLASSIFICATION:

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/577,799

FILING DATE:

APPLICATION NUMBER: 08/880,179

ATTORNEY/AGENT INFORMATION:

NAME: Neig, J. Timothy

REGISTRATION NUMBER: 38,241

REFERENCE/DOCKET NUMBER: CGC 1909

TELECOMMUNICATION INFORMATION:

TELEPHONE: (919) 541-8587

TELEFAX: (919) 541-8689

INFORMATION FOR SEQ ID NO: 3:

SEQUENCE CHARACTERISTICS:

LENGTH: 593 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

US-10-079-035-3

Query Match

Best Local Similarity 47.2%; Score 1276; DB 13; Length 593; Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

5 TSHVNTAFSDSDSASVEEGDADADADVEALRLSDNLAAPSPEDFAFLADARIAPVPG 64  
17 TSFVATDNTDSSIVYLAAGVLTGPDVSAQLQLSNFSFVSPPD--FYSDAKLVL--- 71  
65 GGGGDDLVRHRCVLSARSPFLRGVFAARRAAAAAGGEGEDSRLRELELGGGEEVEVG 124  
72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKEKOSNNTAAVLEKEI----AKDYEVG 124  
125 YEALNLVDLYSGRVDLPKAAACLVDEDCAHVGCHPAFAVAQVLPFASTFOVAELTN 184  
125 FDSVTVTLAVYVSRRPPKGVSECADENCGHVACRPADVMEVLYAFIFKIPELTT 184  
185 LFQRLLDVLDRVEVDNLLIISVANLGNKSCMKLIERCLDMVVRNLMITLESKLPD 244  
185 LYQRLLDVLDRVDRKVLIEDLVILKLANICGAKCMKLDRCKEIIVSNVDMVLSLEKSP 244  
245 VIKQIIDARLSGLISPEKKGFPNKHVRIRHRLSDDELVEYRMILLTGQTNLDAFALH 304  
245 LVKEIIDRKEIGLEVPKVK---KHVSNVHALSDSDI-EIVKLLIKDHNTLDDACALH 300  
305 YAVEHCDSKITTELDLADVNHNRPGRYTVLHIAARRREPKIIVSLTGARPADVTF 364  
301 FAVAYCNVKTATDLKLADLADVNHNRPGRYTVLHVAAMKEPQLIISLEKASASEATL 360  
365 DGRKAVOISKRLTKODYFGVTEBGRSPKDLCTEIIIEQARRDPQLGEASVSLMAGE 424  
361 EERTALMTAKQATMAVECNRIPEQCHSLKGRLCVEILTEQEDREQIPRDVPPSPVAAD 420  
425 SURGRLLYENRVALARIMFPEARVANDIAQVDTLEFNLSGANPPR---ORTTV 480  
421 ELKMTLLDENVALAORLFPTEAQAAMETIAEMKGCETIVS--LEFDRLTGTRTSP 477  
481 DINESPFIKKEHLARMTALSTVELGKRPFRCSNVLDKIND-DETDVSLGRTSASK 539  
478 GVKIAPFRLIEBHOSRLKALSTVELGKRPFRCSAIVLDQIMNCEDLTQLACGEDDTARK 537  
540 R----KRFHDLQDVLQKAFHEDKEENDRSGLSSSSSSTS 574  
538 RLQKKQRYWEIQETLKKAFFSEDNLEIGNSLTDTSTSTS 576

Db

Query

Search completed: January 19, 2005, 16:05:24

Job time : 152 secs

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